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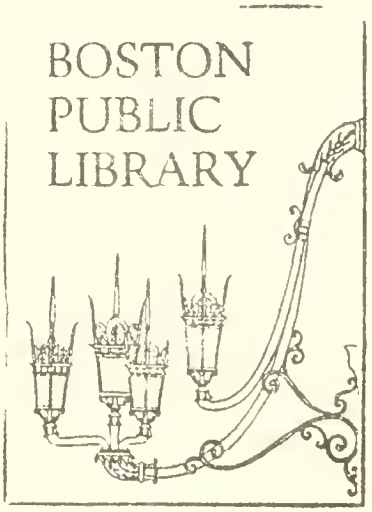
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BOSTON REDEVELOPMENT AUTHORITY

planning department

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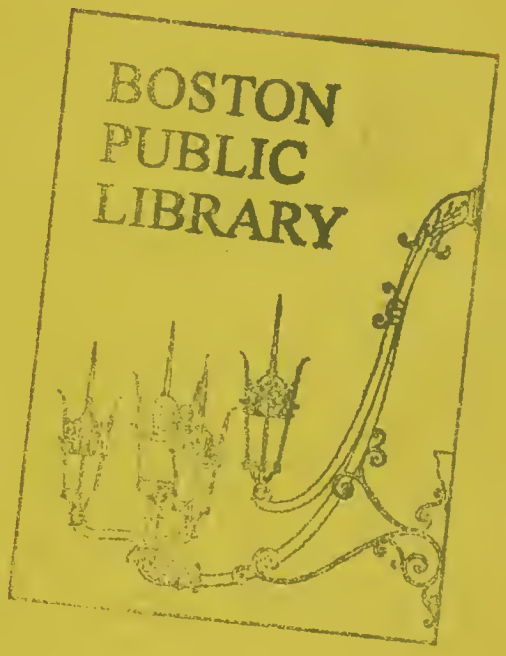

CABOT ESTATE STUDIES

Jamaica Plain
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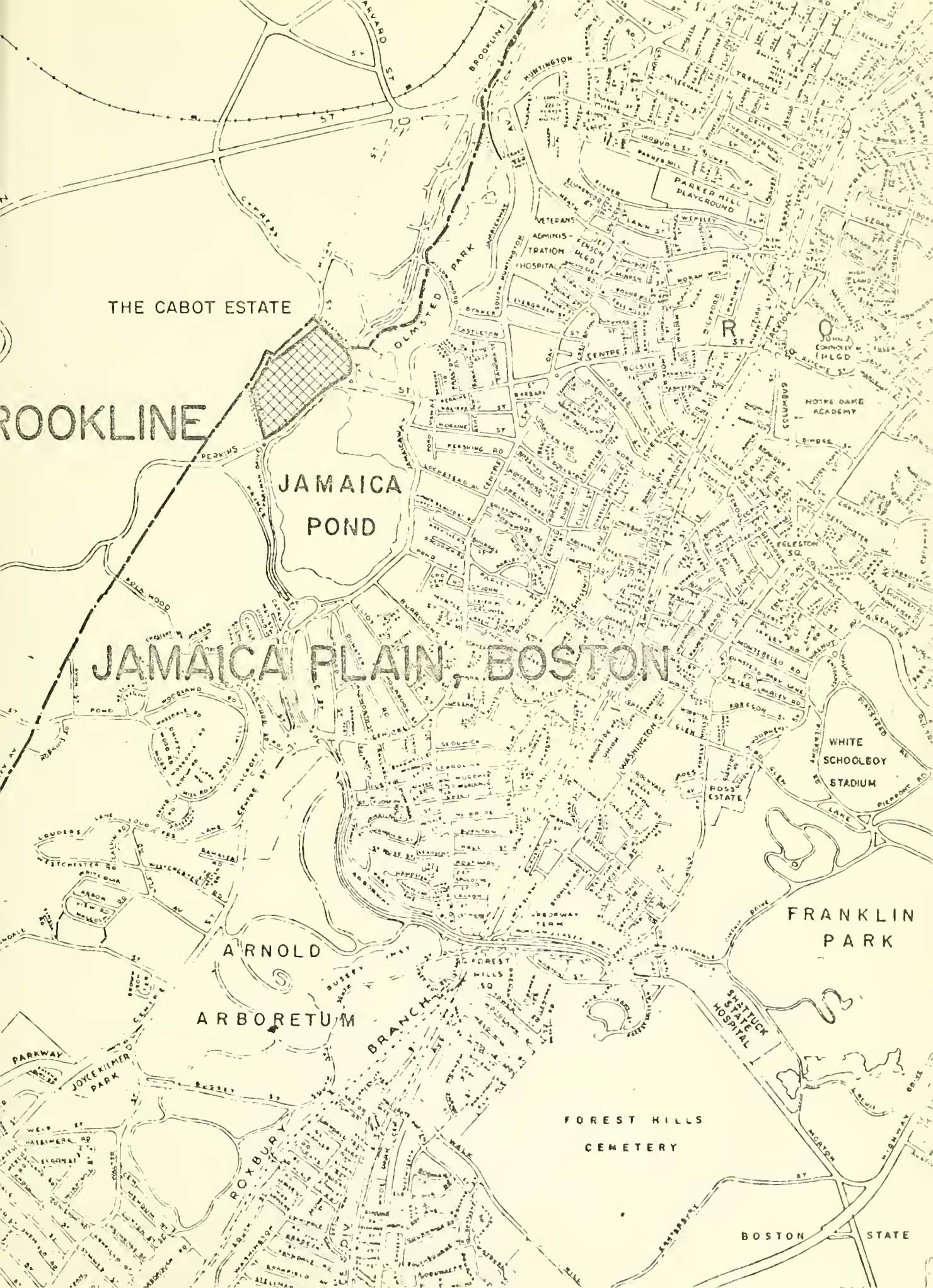
THE CABOT ESTATE

BACKGROUND, IMPACT AND FEASIBILITY STUDIES

Boston Redevelopment Authority


THE CABOT ESTATE
ROOKLINE
JAMAICA POND
JAMAICA PLAIN, BOSTON
ARNOLD ARBORETUM
FRANKLIN PARK
FOREST HILLS CEMETERY
WHITE SCHOOLBOY STADIUM
PARKER HILL PLAYGROUND
VETERANS ADMINISTRATION HOSPITAL
NOTRE DAME ACADEMY
OLMSTED PARK
JOYCE KILMER PARK
SHATTUCK STATE HOSPITAL
BOSTON STATE
ROXBURY
BRANCH
PERKINS
HUNTINGTON
BROOKLINE
CYPRESS
WASHINGTON
CENTRE
SEDGWICK
FOREST HILLS SQ
BROADWAY TERM
PARKWAY
WALK HILL
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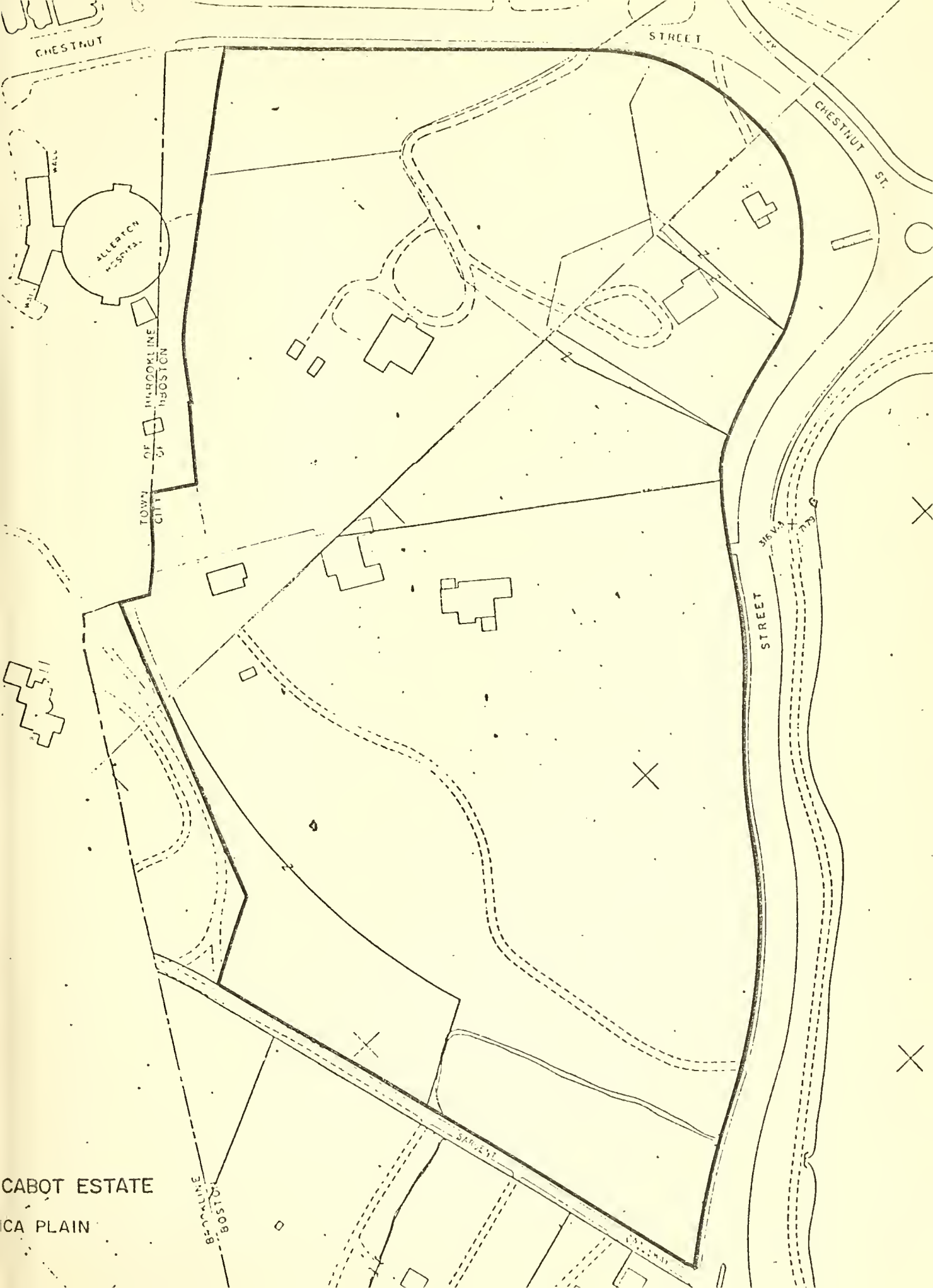


CABOT ESTATE

ICA PLAIN

I. BACKGROUND

In June of 1969 a developer, Pasquali Franchi, purchased a 22.8 acre site of 5 old estate homes adjacent to Jamaica Pond, Jamaica Plain. A portion of this site was the former Cabot Estate. At about the same time Mr. Franchi had several consultants undertake a series of marketing and impact studies. On the basis of these studies Mr. Franchi discussed with the BRA a 2,000 unit development of three 40 story luxury rental apartments.

The magnitude of this proposal was significant given the existing single family zoning of the site and the surrounding area. In addition, the property was located adjacent to Jamaica Pond. The pond is a major feature of the Olmstead Park system. It was felt that any development on the Cabot Estate site would have a significant impact upon this portion of Olmstead Park as well as the future character of the adjacent residential area.

City and community concern for appropriate conservation and development resulted in the formation of two advisory groups.

The Cabot Estate advisory committee is a local community group concerned with conservation and development. It has been the community group which has been responsible for reviewing and commenting on the work of the various city agencies, specifically, OPS, Parks and Recreation, and BRA.

The Mayor's Task Force on open space was formed at the request of the Cabot Estate Adivsory Committee. Its members are Mrs. Beal, Chairman of Parks Commission; Mr. Curtis, Commissioner of Parks and Recreation; Mr. Kenney, Director of Boston Redevelopment Authority; Doctor Nevling, Chairman, Cabot Estate Advisory Committee; Mr. Salvuchi, Assistant Director Office of Public Service. The Task Force is charged with reporting to the Mayor on what portions of the site should be preserved for open space.

In the series of meetings which took place between the BRA, the task force and the community, a range of questions were discussed. Answers to these questions were prepared by the BRA in the form of a series of reports. In addition, material was presented by the developer.

II. SCOPE OF STUDIES

The studies prepared by the BRA explored the feasibility of total conservation and they tested the impact and feasibility of alternative forms of development on the Cabot Estate.

More specifically the studies of conservation described the ecological qualities of the site and what resources were available for acquisition and regualtion.

The studies which related to development of the site analyzed alternative building masses in terms of four basic concerns. These

factors were ecology, design, community impact and financial feasibility. The basic question which these studies tried to answer was "what is the impact of various densities (150, 350, 650, 750 units) and types (single family, condominium-town house, elevator apartments) of development on the Cabot Estate in terms of the four basic concerns of the City and the community.

The six basic studies undertaken by the BRA are included in the following pages. A brief summary of each is given below.

SUMMARY OF STUDIES

A. Backgound

1. Backgound Material on the Cabot Estate, its Ecology and the Surrounding Neighborhood.

This report includes basic data on the site, chronology of major events which led to a community - BRA - developer planning process, a summary of an ecology site study undertaken by the the developer's consultant, Sasaki, Dawson and DeMay, and an analysis of the residential and open space characteristics, opportunities and liabilities of the Jamaica Pond Sector.

2. Cabot Estate Jamaica Pond Sectors Tour

The report includes maps of the site and the surrounding area. It describes the land use and ownership characterics of the area surrounding the Cabot Estate.

B. Analysis of Alterative Densities and Types of Development on the Cabot Estate.

3. Impact of Alternative Densities and Types of Development on the Cabot Estate

This report describes the impact of alternative models of development on the Cabot Estate in terms of a variety of open space, design, and community concerns.

4. A Survey of Condominium Developments in the Greater Boston Area

This report is an analysis of condominium developments in the Greater Boston area in terms of the unit size, location, price, marketing, etc.

5. Prices, Profitability, and Marketability of Alternative Densities and Types of Development on the Cabot Estate.

This report analyses the prices, profitability, and marketability of the various alternative schemes analyzed for the Cabot Estate.

C. Summary

6. Summary of Alternative Development Schemes

This report summarizes the above open space, design, financial and community impact studies.

BACKGROUND MATERIAL ON THE CABOT ESTATE

CABOT ESTATE STUDY

I. BACKGROUND

A. Background Data

1. Location

The Franchi property is bounded by the Sargent Crossway, Perkins Street, Chestnut Avenue and the Town line of Boston-Brookline.

2. Size

22.8 acres

3. Ownership

Pat Franchi

4. Buildings

5 homes
1 large garage

5. Sales Price; land and buildings

$1,022,710

6. Assessed Value

Land - $118,200
Buildings - $42,100
Total - $182,900

7. 1970 Taxes Paid

$28,678

B. Chronology of Events

1. June, 1969 - Franchi purchases property.

2. September, 1969 - Presentation of proposal to BRA. Original proposal was for three 40 story towers, 2,000 units. Supporting documents included market and impact studies.

3. October 1, 1970 - Franchi files for map change before Zoning Commission. Request is for a map change from S-.3 to H-3. The petition is held, no date set for hearing.

4. November 1, 1970 - BRA meets with Franchi to discuss map change. BRA says PDA (Planned Development Area) only appropriate route. Background studies necessary before PDA is considered .

5. December 1, 1970 - Franchi contracts with Sasaki to do ecology and site accommodation studies of Cabot Estate. Reduces proposal to 1,000 units.

6. December - January, 1971 - OPS involvement. Review of open space and development alternatives.

7. January 18, 1971 - Community involvement.

   a. Cabot Estate Advisory Committee formed.

   b. January 28, 1971 - Cabot Estate Advisory Committee forms two sub-committees - one for conservation, the other to work with the BRA and the developer.

   c. February 11, 1971 - Community-wide meeting to review background on Cabot Estate.

8. January - February, 1971 - Franchi submits 950 unit proposal, i.e., two 40 story towers (800 units); 150 townhouse units.

9. February - March, 1971 - BRA undertakes background studies for community on traffic, engineering, site development.

10. April, 1971 - Mayor calls for formation of an open space committee which will report back to him in 30 days.

11. May 18, 1971 - Franchi to meet with Cabot Estate Advisory Committee.

II. EXISTING LAND USE MAP

The Cabot Estate site contains 5 homes: The Peabody, The Cabot (including a large garage), Nutwood, Gwin, and Whiskey Point.

There are 5 existing points of access-egress. The Nutwood and Gwin homes share one driveway. The other 3 properties have their own driveways. The fifth point of access is from the Sargent Crossway. There is some question as to the legality of using the Sargent Crossway as a point of access to service the whole site.

III. WOODLAND AREAS MAP

A. Characteristics

There are four distinct woodland areas on the Cabot Estate property. Each is characterized by trees of a particular type and age, as measured by the diameter of the trunk. Topography, property lines and internal roads reinforce the boundaries of these woodland areas.

Area 1 - Sargent Crossway - Wetlands

American Elm - 18"-20"

Red Maple - 6"-8"

Sycamore - 20"-56"

White Birch - 4"-6"

Area 2 - The West Slope

Beech - 42"-70"

Red Oak - 6"-20"

White Birch - 12"-15"

Hemlock - 16"-28"

White Pine - 12"-18"

Area 3 - North Slope

Oak - 16"-24" (few 36")

Area 4 - Southern Slope

Black Cherry - 12"-15"

Beech - 18"-20"

Sugar Maple - 6"-12"

Red Oak - 6"-8"

White Oak - 8"-12"

Hemlock - 10"-18"

White Pine - 12"-18"

B. Major Elements

1. Old Trees (distance feature map)

Beech - 90"

Oak - 42"

Sycamore - 56"

2. Woodland Coverage (existing condition map)

The only portions of the property which are not covered by woodland are the wetland, the meadow, and the homesites. (See Existing Land Use Map).

IV. STREAM AND WETLAND AREAS MAP

A. Description

A portion of the Cabot Estate, the wetlands, is an integral part of a larger watershed system of stream, ponds and watershed access. The system begins in the Sargent Estates.

1. Ground water from the Sargent Estates feeds into the Sargent Pond. The pond, which is manmade, serves the purposes of flood control and ground water storage. The pond also functions as a refuge for wildlife. A stream from this pond drains across the Sargent Crossway and into the wetlands area of the Cabot Estate.

2. The wetlands area of the Cabot Estate, as the Sargent Pond, serves similar purposes of flood control and conservation. The major difference between these two areas is that the Cabot Estate wetlands contain natural and manmade sediment and fill.

3. Water from the wetlands and the Sargent Pond drain out through a culvert under Perkins Street and into Jamaica Pond. Jamaica Pond, unlike the other two watershed areas, is a natural, spring fed pond. It is not dependent upon ground water for its existences.

B. Major Elements

1. Sargent Pond

2. Cabot Estate Wetlands

3. Streams and Culverts

4. Jamaica Pond

V. DISTINCTIVE NATURAL FEATURES MAP

A. Rock outcroppings

1. Glacial till and boulders are most evident on the western ridge above the wetland area.

2. Major outcroppings of bedrock are found on top of the hills near the Cabot and Nutwood houses.

B. Meadow

1. The only major open area on the site is a grass meadow of relatively level terrain.

C. Hedge

1. A hedge of Arborvitae and Hemlock screens the meadow and Cabot house from Perkins Street.

D. Domestic Plantings

1. There are a great variety of plantings around all of the homes.

2. The front yard of the Cabot Estate, in particular, contains a well planned arrangement of bushes, plants and trees.

E. Old Trees

1. Beech - 90"

2. Oak - 42"

3. Sycamore - 56"

VI. SLOPE

A. Characteristics

There are four basic gradients of slope; the steeper the grade, the more difficult it is to build.

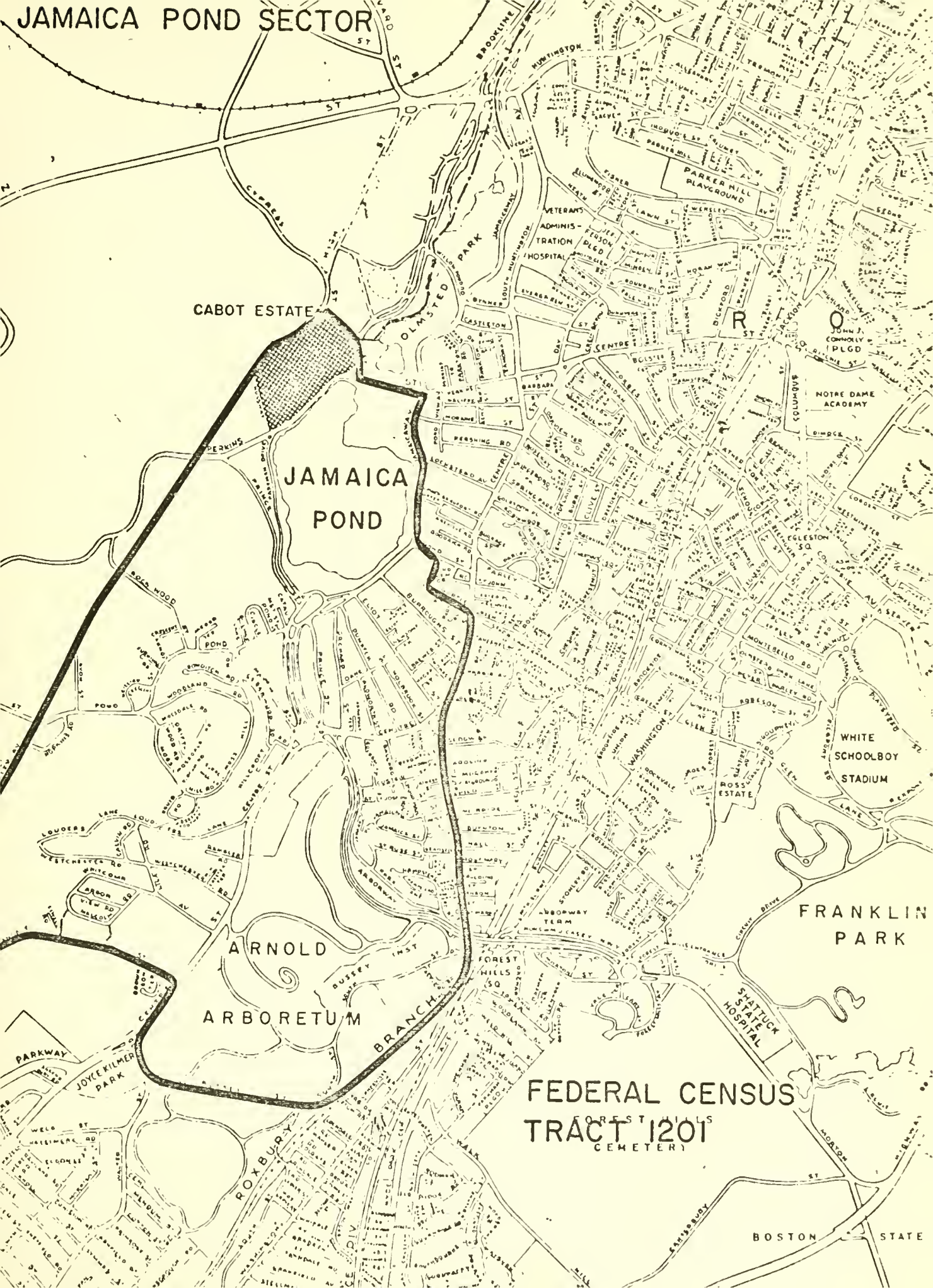
B. Major Elements

0-5 slope - the wetlands, meadow and hilltops are the most level areas of the site

5-10 - the borders of the relatively level areas fall in this zone

10-20 - the edges of the steep hillsides and ridges

20 + L - the hillsides and ridges, most particularly the northern and western slopes


JAMAICA POND SECTOR
CABOT ESTATE
JAMAICA POND
OLMSTED PARK
VETERANS ADMINISTRATION HOSPITAL
PARKER HILL PLAYGROUND
JOHN J. CONNOLLY PLGD
NOTRE DAME ACADEMY
EGLESTON SQ
WHITE SCHOOLBOY STADIUM
ROSSE ESTATE
FRANKLIN PARK
ARNOLD ARBORETUM
FOREST HILLS SQ
SHATTUCK STATE HOSPITAL
FEDERAL CENSUS TRACT 1201
FOREST HILLS CEMETERY
JOYCE KILMER PARK
ROXBURY
BOSTON STATE

VII. THE JAMAICA POND SECTOR

A. Definition of Sector

The Jamaica Pond Sector is that residential area of Boston within which the Cabot Estate is located. For purposes of statistical analysis, the boundaries are defined by the Federal Census Tract number 1201. These boundaries are indicated on the accompanying map.

B. Residential Characteristics

The Jamaica Pond Sector is a relatively stable, white middle-class family residential community.

1. POPULATION

a. Population Trend

There was only a 4% decline in total population between 1960-1970 (7,917 to 7,618 persons) in this section compared to a 10% drop for the City as a whole.

b. Household Size

Average household size in 1970 (the number of persons per dwelling unit) is above that of the City; 3.2 as against 2.7 for the City.

c. Population Density (Gross)

The gross population density of this sector in 1970 was 8 persons per acre compared to the gross overall density of 20 persons per acre for the City of Boston.

d. Racial Change

Racial change in this area has been minimal. The non-white population in 1970 comprised only 2% of the total population of the Jamaica Pond Sector.

e. Median Income

The median income in 1960 was substantially higher than the City total, $7,717 compared to $4,177.

f. Median Age

In 1960 the population was slightly older than the City as a whole. In this area, the median age was 31.5 for males and 37.9 for females; in the City 30.8 for males and 35.9 for female.

2. HOUSING

a. Trend in Total Number of Dwelling Units

The number of dwelling units increased 8% during the past decade, from 2,213 in 1960 to 2,397 in 1970; the City total declined over 1% in the same time period.

b. Owner Occupancy

Owner Occupancy in 1970 was almost twice as high in this sector as for the entire City, 51% in this area, 27% for the City.

c. Type of Residential Structures

The percentage of units in various type structures differs from the city total. In the Jamaica Pond Sector in 1970, 38% of the units were single family houses, 50% of the units were located in two, three and four family structures and 12% of the units were in buildings with five or more units. In the City of Boston in 1960 only 16% of the units were single family houses. 50% were in buildings with between two and four units and 34% were in five unit or more structures.

d. Median Sales Value

The median value of owner occupied units for the Jamaica Pond Sector in 1970 was $31,000; the median value for the City of Boston was $19,500. Of the 823 owner occupied single family units, 39 were recorded in 1970 with a value in excess of $50,000.

e. Median Contract Rent

The median rental in 1970 in the Jamaica Pond Sector was $117. Only four of the 1,081 rental units were recorded with rents over $300 a month. The 1970 median rent in the City of Boston was $99.

f. Vacancy rate

The vacancy rate recorded in 1970 for this area of the City was 1%.

g. Building Condition

The condition of the structures in the Jamaica Pond Sector is excellent.

3. ELEMENTARY SCHOOLS

The Cabot Estate Site is located in the Agassiz Public School district. As the following chart indicates, the existing enrollment is over the recommended capacity of the four elementary schools in this district. But when the Murphy school is completed, the district will be able to absorb an additional 140 pupils.

AGASSIZ DISTRICT - SCHOOL ENROLLMENT. PRESENT & PROJECTED

Existing Enrollment*	Recommended Capacity**	Present over Enrollment	Projected net Gain in Seats from New Murphy School***
1,175	1,015	60	140

---

*Distribution of White & Non-White pupils in the City of Boston October 1, 1970. Department of Education, Boston

**Sargent Report

***Enrollment of New Murphy School (800) minus sum of enrollment of Agassiz School and present over enrollment.

In addition to the public schools, two parochial schools are located in the Jamaic Pond Sector. Furthermore, there are several other parochial as well as private schools in the vicinity of this district.

4. COMMERCIAL CENTERS

The only shopping area within the Jamaica Pond Sector is located along Center Street. This is a local business district. Other similar areas are located outside the Sector in Brookline and Boston. Major shopping districts are found in Brookline, West Roxbury, and the suburban shopping Centers.

C. Open Space Characteristics

The Jamaica Pond Sector consists of approximately 950 acres. A large percentage (about 55%) of this are is taken up by either private or public open space. For this reason, large portions of the Jamaica Pond district have a uniquely distinct rural, pastoral quality.

1. PUBLIC OPEN SPACE

The major active public open space area is the Jamaica Pond section of Olmstead Park. This Sector covers approximately 100 acres. It contains both active and passive recreational opportunities. Active activities consist of baseball, bike trails, and barbecuing, and boating. Passive activies consist of walking trails, fishing, and sitting areas. The Park itself, in additon to serving as a visual greenbelt, also provides for open space conservation as well as the protection of water quality and flow.

The Arnold Arboretum consists of approximately 220 acres of passive open space. This as well as the Olmstead Park are major elements of the City's open space system.

2. PRIVATE OPEN SPACE

a. Institutional

Five institutions own approximately 130 acres of relatively undeveloped land in the Jamaica Pond Sector. These institutions are the Hellenic College, the Nazareth School, St. Paul, the Maronite Church, and the Faulkner Hospital. Major portions of these institutions' properties is maintained as rural landscape.

b. Residential

A similar quantity of rural open space in the Jamaica Pond Sector is maintained by the owners of residential estates. These properties are similar to the Cabot Estate. The homes are large and the grounds are well landscaped.

D. Transportation

Circulation in the Jamaica Pond Sector is dependent for the most part on an inefficient street layout.

The major arterials are the Jamaicaway, Perkins, Center Streets, and the Arborway.

Public transit is available at Brookline Village, (the Riverside line) and along Center Street, (the Arborway line).

e. Zoning

The vast majority of land in the Jamaica Pond Sector is zoned for single family homes; either S-.3 or S-.5. A small portion of the area along Center Street is zoned R-.5 for multi-family dwellings. The minimum lot size for each house permitted under these densities are as follows:

S-.3: 9,000 sq. ft.

S-.5: 6,000 sq. ft.

R-.5: 5,000 sq. ft.

f. Changing Land Use

The Jamaica Pond Sector has always been known for its picturesque, rural quality. In early colonial days, the Pond area was a summer resort for wealthy Bostonians. In the early 1800's, the Jamaica Pond Sector was predominantly a community of gentlemen farmers; and in the latter part of the 1800's, the Olmstead Park system was established.

Major shifts in the character of this area came with the construction of the Arborway trolley and the need for residential housing after World War II. The former factor resulted in the development of the Center Street district and the latter resulted in the sub-division of Moss Hill. Most recently, in the last 15 years, it has been estimated that 20 acres of park land have been lost to various forms of new construction.

Four examples of recent or proposed construction indicate possible patterns of future growth of the remaining areas of undeveloped land. These are:

1. The Parkside Drive sub-division of single-family homes. i.e., a continuation of development according to present S-.3 zoning.

2. The Jamaicaway Towers development; a 30 story, luxury high rise apartment complex at a F.A.R. about seven times that permitted under S-.3 zoning.

3. Fairgreen Place, this is a luxury condominium development of clustered townhouses. (Located in Brookline)

4. Faulkner Hospital, the current proposal calls for a new 8 story hospital.

VIII. RELATIONSHIP OF THE CABOT ESTATE SITE TO THE JAMAICA POND SECTOR AND THE COMMUNITY

A. Residential

1. OPPORTUNITIES

There are three opportunities for residential development on the Cabot Estate. They are:

a. Single-family homes based upon current S-.3 zoning.

b. Condominium townhouses at or in excess of current densities.

c. High rise apartments.

The apartment alternative would have the least problem being marketed. In any case, there is a significant city-wide need for housing.

2. CONSTRAINTS

There are four major constraints with respect to residential development.

a. Traffic - The existing street system is conjested, and any development will require some improvements. As the density of the residential complex increases, so will the necessity for specific traffic improvements.

b. Market - The market for a large number of luxury single-family or condominium houses is unknown. See BRA staff report, "Summary of Alternative Development Schemes."

c. Different types and densities of development have a varying impact upon traffice, open space, community facilities, etc.

These are described in the BRA staff report "Summary of Alternative Development Schemes."

d. Zoning, any development which violates S-.3 zoning, will require a variance or map change.

B. Open Space

1. OPPORTUNITIES

a. Local Open Space Uses:

The Cabot Estate site offers opportunities for recreational use as well as for conservation purposes. Active uses thus far suggested could include the location of a public or non-profit institution in one or more of the homes, and the development of picnic areas. Passive recreation use would include walking and nature trails. Protection of water flow from the wetlands to the Cabot Estate is a likely conservation opportunity.

b. Regional Open Space Uses:

The major regional use of the Cabot Estate would be to include it as a part of Olmstead Park. In this way a significant parcel of relatively undeveloped land could be incorporated into an existing park system. The acquisition would further enlarge the green belt character of the Olmstead Park. It would also provide and open space buffer between the town of Brookline and Boston.

2. CONSTRAINTS

a. The availability of sufficient resources to purchase the Cabot Estate is a major liability of the open space objective. The actual constraints are discussed in the analysis section of this report.

b. A second major constraint is accessibility. The Cabot Estate site lies in a section of the city which already has large areas of open space. In addition the site is located at the considerable distance from major population centers. Therefore the open space would not be directly accessible to those families and children most in need.

c. Agency (City, State and Federal) priorities for open space place a priority on sites for acquisition which are located within dense areas of population or which could be used for active open space purposes. The Cabot Estate site fits into neither of these priorities.

PUBLIC TOOLS TO ACQUIRE OR REGULATE LAND USE FOR CONSERVATION PURPOSES

I. Acquisition (see Attachment #1, Programs for Open Space Land Acquisition)

A. Title VII, Open Space Land Acquisition

B. Land and Water Conservation Fund

C. State of Massachusetts "Self-Help" Program

D. MDC fund for open space acquisition

E. City of Boston Bond Issue Authority

II. Police Power Controls

A. Planned Development Area (Cluster Zoning)

B. Conservation Easements (under State Enabling Legislation)

C. Public Regulatory Measures

1. The Inland-Wetlands Act. This is a restrictive measure. It is too cumbersome to apply in the case of the Cabot Estate.

2. The Hatch Act. This is a regulatory measure. It covers any wetland areas, streams or banks. (See Attachment #2)

3. Chapter 91. If public improvements were implemented for flood control purposes, then any disruption of these improvements requires a permit.

III. Taxation

A. Use of assessment power.

CABOT ESTATE - PROGRAMS FOR OPEN SPACE LAND ACQUISITION

Towns can get help in purchasing open space for recreation and conservation from a combination of either two federal programs, the Department of Housing and Urban Development's "Open Space Land Program" and the Bureau of Outdoor Recreation's Land and Water Conservation Fund, and the State's Conservation Self-Help Program.

a) The Open Space Land Program

The U.S. Department of Housing and Urban Development's (HUD) Open Space Act, of Title VII of the Housing Act of 1961 (as amended), is a pioneer in open space legislation. This Act authorizes federal matching grants of up to fifty percent to both states and local public bodies in urban areas for the following purposes: (1) to assist in acquiring title to, or other permanent interests in (a) open space and the limited development of such land for park, recreational, conservation, historic or scenic purposes, (b) land in built-up portion of urban areas to be cleared and used as permanent open space land, (c) areas, sites and structures of historic or architectural value and their restoration and improvement; (2) to assist in carrying out local programs for the greater use and enjoyment (including beautification) of open space and other public land in urban areas.

b) The Land and Water Conservation Fund

The Land and Water Conservation Fund Act of 1965 provides financial assistance to states, and, through the states, to their political subdivisions for acquisition and development of needed land and water areas and facilities. The major purpose of the Act is to provide outdoor recreational opportunities principally in the states affected most by urbanization.

Acquisition and development grants are available for many types of projects depending upon state requirements. Among others these may include large multiple purpose metropolitan parks, boat launching facilities, ski lifts, campgrounds, picnicking sites, scenic drives, swimming beaches, urban playgrounds and ballfields, golf courses, tennis courts, hiking trails, swimming pools, bicycling paths, and the development of water impoundments and natural interpretation areas. Prime importance is attached to: (1) development of basic rather than elaborate facilities, (2) projects which will serve large numbers of people, (3) development of active over passive facilities, (4) acquisition in and near urban areas, and (5) projects furnishing a broad range of outdoor recreational uses and experiences.

Both Title VII and the Land and Water Conservation Fund Act provide that no property acquired or developed with the assistance of these Acts shall be converted to other uses without approval. Approval is to be given only if the conversion is in accordance with the then existing statewide outdoor recreation plans, and only upon such conditions as are necessary to assure the substitution of other properties of at least equal fair market value and of reasonable equivalent usefulness and location.

c) Massachusetts Conservation Self-Help Program

The "Self-Help Program" passed in 1960 reimburses a town up to fifty percent of the town's net cost of approved land acquisition and, in some cases, recreation planning and design. If a town receives fifty percent federal assistance, the state Self-Help Program reimburses the town for one-half the reimbursed share. The total cost to a town could thus be as low as twenty-five percent of the total purchase price. Areas acquired with state Self-Help financial assistance are to be preserved insofar as possible in their natural state.

THE HATCH ACT

1. If any wetland areas, streams, or banks are to be affected by development, a permit is required from Department of Natural Resources.

2. A permit can only be obtained if the developer is able to show that his work will not:

   a. lower the quality of public or private water supply.

   b. interfere with flood control.

3. A permit can be obtained in one of two ways:

   a. regulatory route; developer must receive concurrence in writing of the Conservation Commission, and Planning Commission, and The Department of Public Health.

   b. public hearing; this is held in the Mayor's Office. The Mayor makes recommendations to DNR concerning water supply or flood control.

4. The Commissioner of the Department of Natural Resources issues the permits.

5. Actions by Developer which would require permits.

   a. a paved road on Sargent Crossway.

   b. drainage or filling in of Cabot wetland area.

   c. a building on the banks of the wetland; this is within topographic line 75.

   d. construction of drainage culverts which empty into the wetland area.

   e. the use of salt for snow removal on internal roads would lead to pollution. It would be prohibited.

   f. any construction which leads to the pollution of the stream or wetland area.

6. Grounds for issuance of permit

   a. if measures are taken by developers to insure that water quality is not seriously affected.

   b. if measures are taken by developers to insure that flood control is not affected.

CABOT ESTATE - JAMAICA POND SECTOR TOUR

ITINERARY

1. Curtis Hall

2. Sargent Estate Area, including Sargent Pond

3. Cabot Estate

4. Fairgreen Place Town House Condominiums, Brookline
(sales price of units - $76,500)

5. Allandale Road - American Academy of Arts and Science Area.
Boston-Brookline

6. St. Paul - Nazareth School - Larz Anderson Park area.
Boston-Brookline

7. Moss Hill Community, Jamaica Plain, Boston

8. Parkside Drive Sub-division, Jamaica Plain, Boston.
(sales price of homes about $40,000)

9. Hellenic College, Boston-Brookline

NOTE: O = Stop

GENERAL CHARACTERISTICS OF JAMAICA POND SECTOR

A. rural quality of landscape

B. large estates

Sargent area
Chapman
Parker
Lawrence
Brandegee
Bakalar

C. large institutions

Hellenic College
Nazareth School
St. Paul
Dexter School
Park Street School
Maronite Church

D. Large Parks

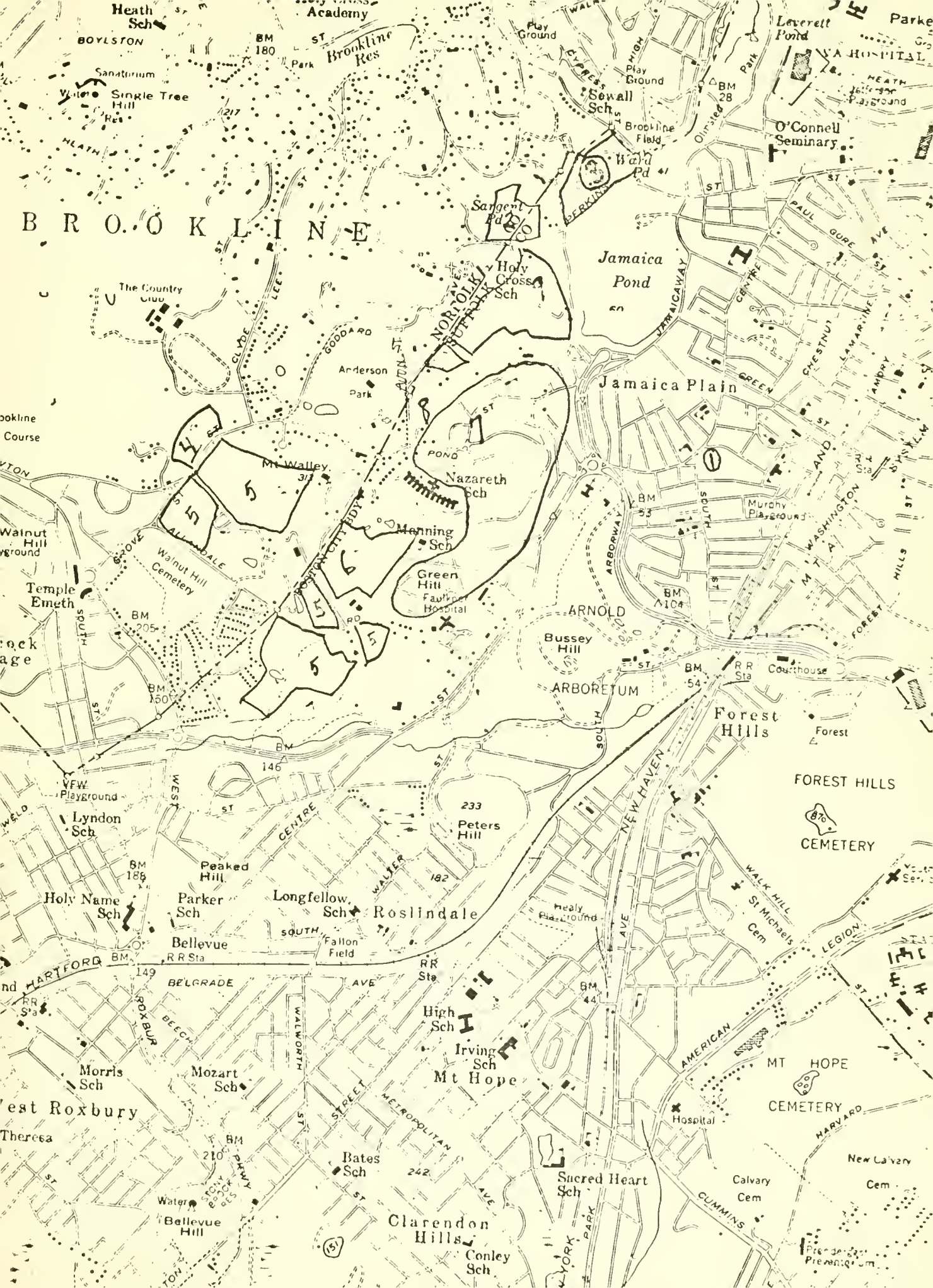
Olmstead Park system
Sargent Pond
Larz Anderson Park
Arnold Arboretum

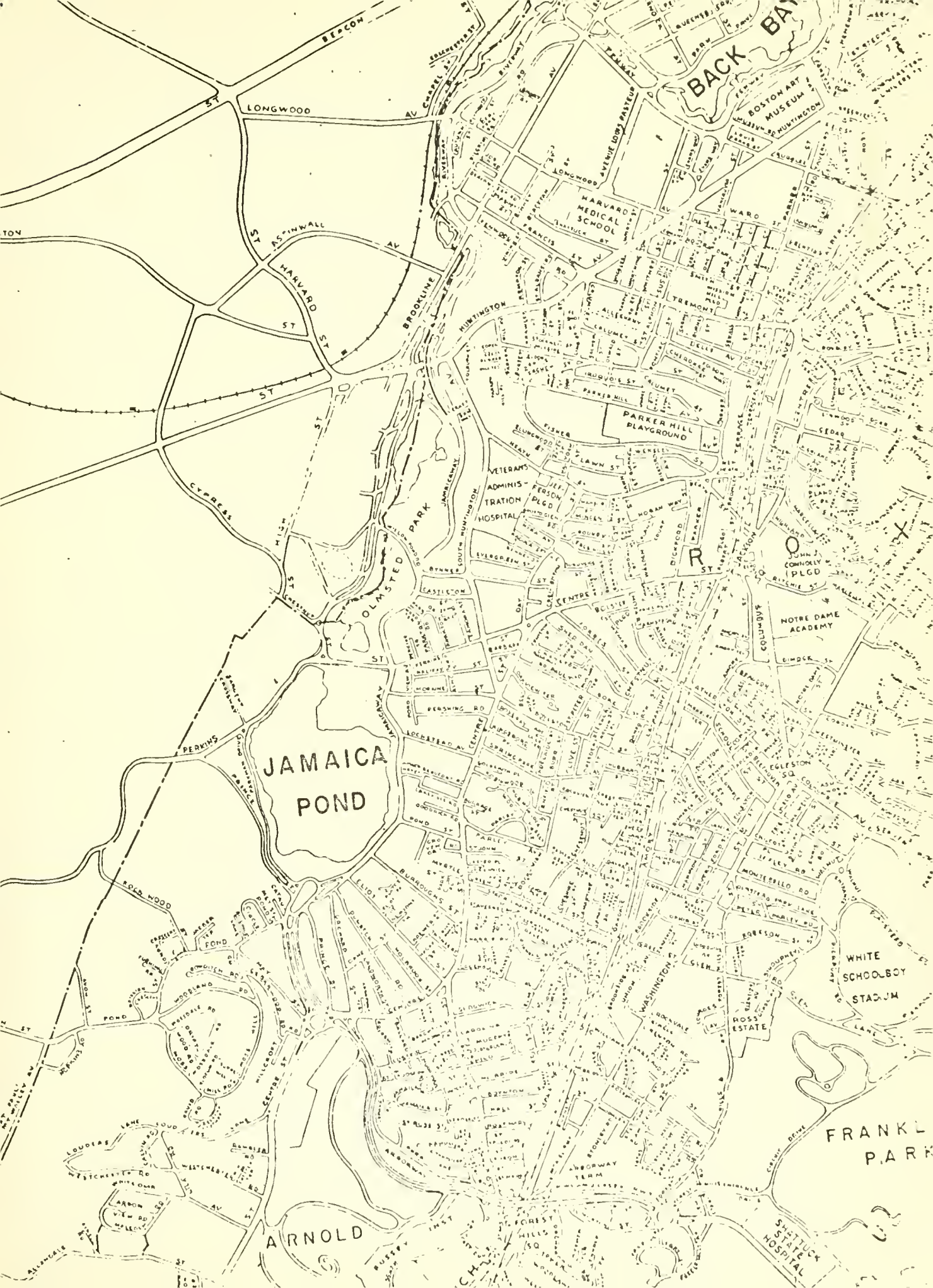
E. Lack of good access both north-south and east-west

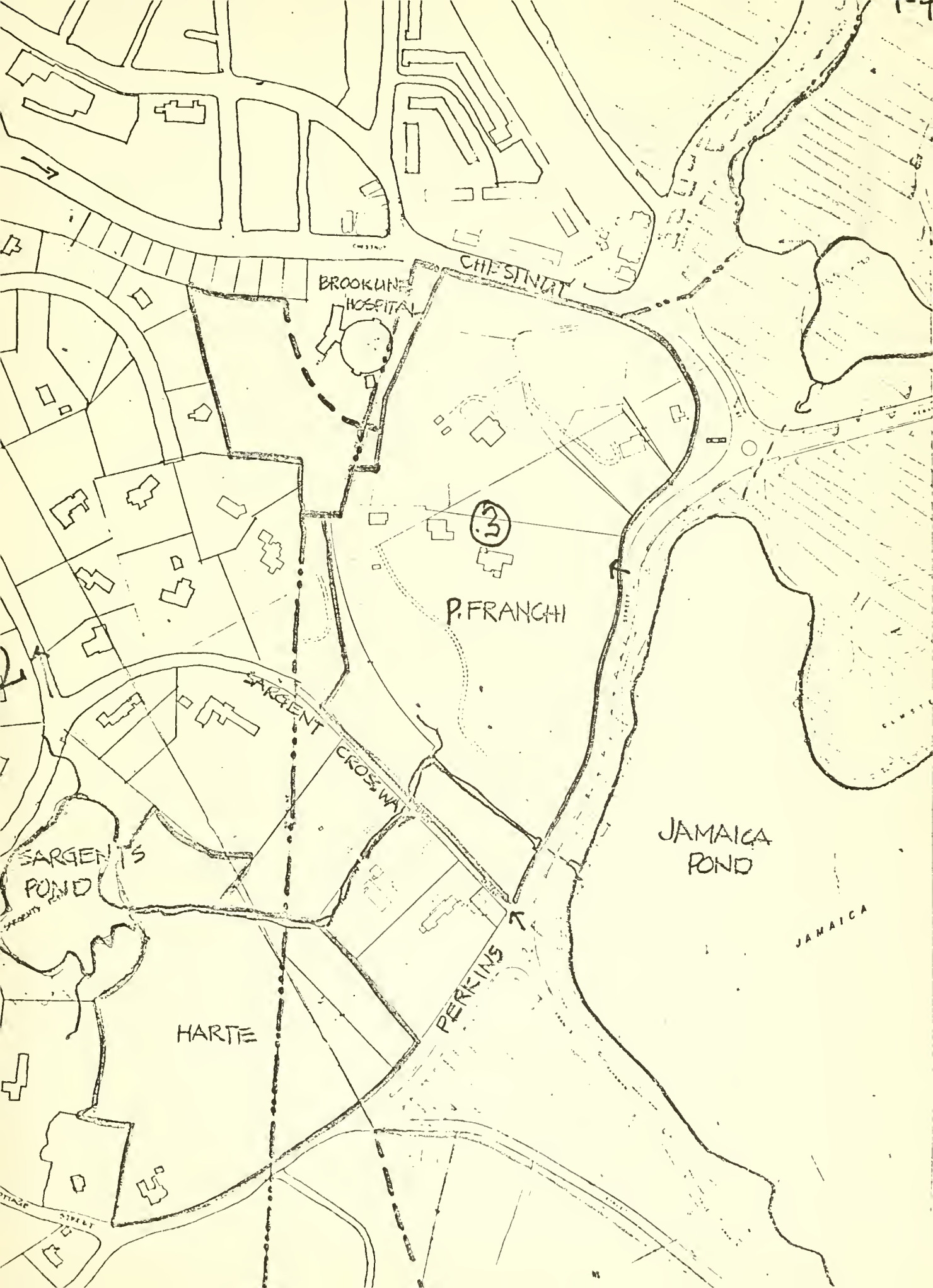
F. Lack of local retail facilities

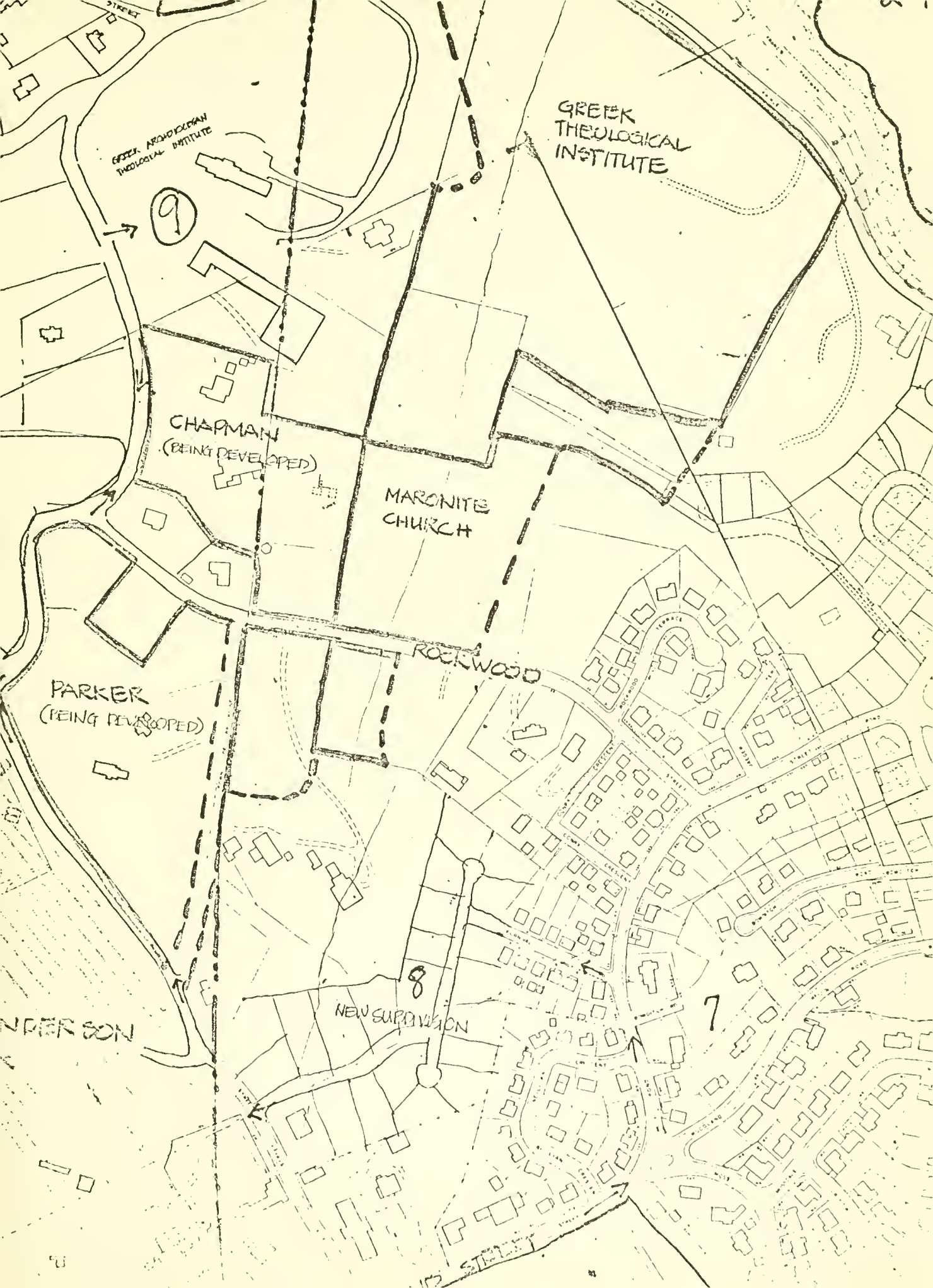
G. Note: The type, density and design of new construction

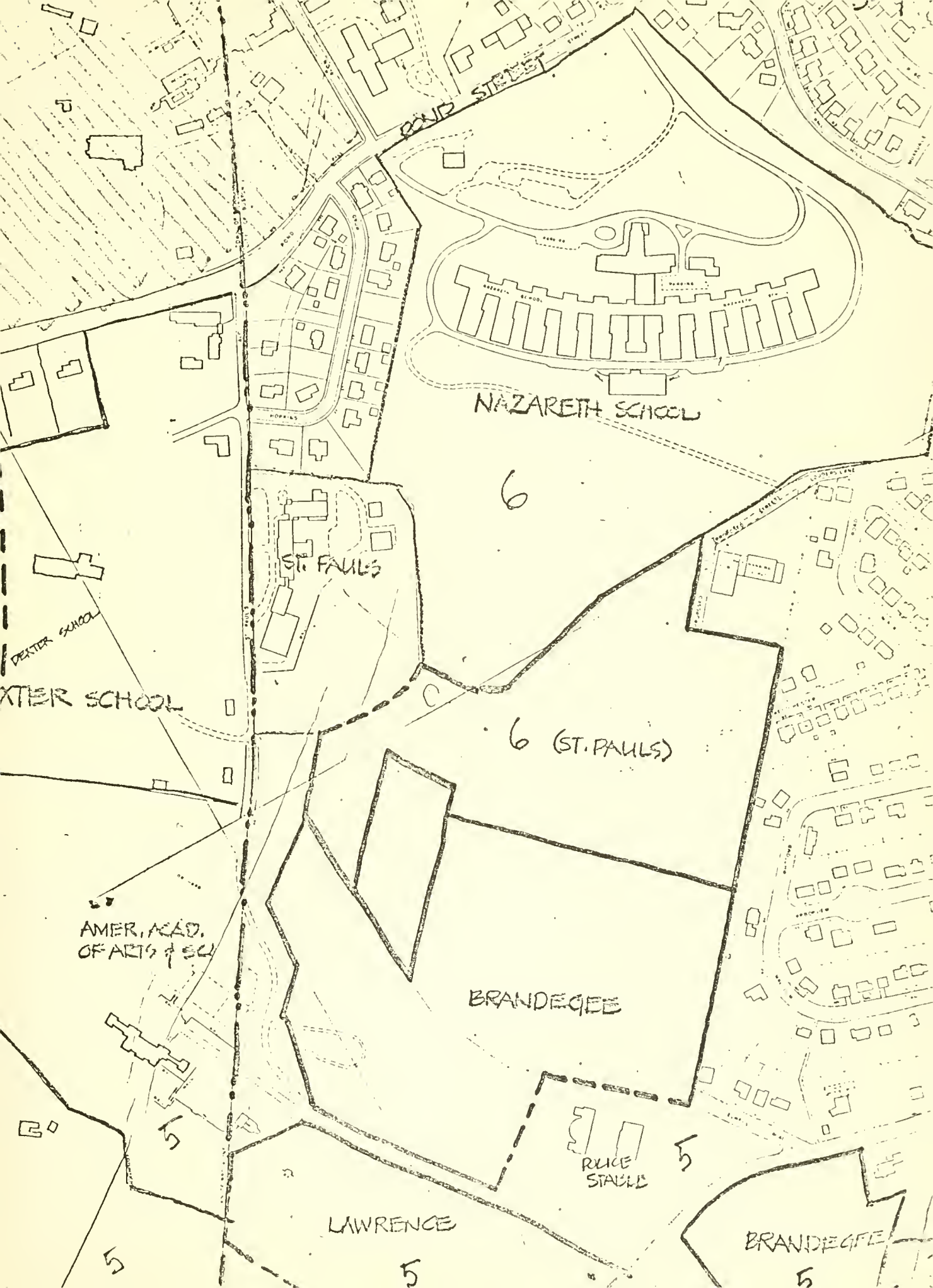
The Park Street School
Fairgreen Place Condominiums
Parkside Drive sub-division
Jamaicaway Tower

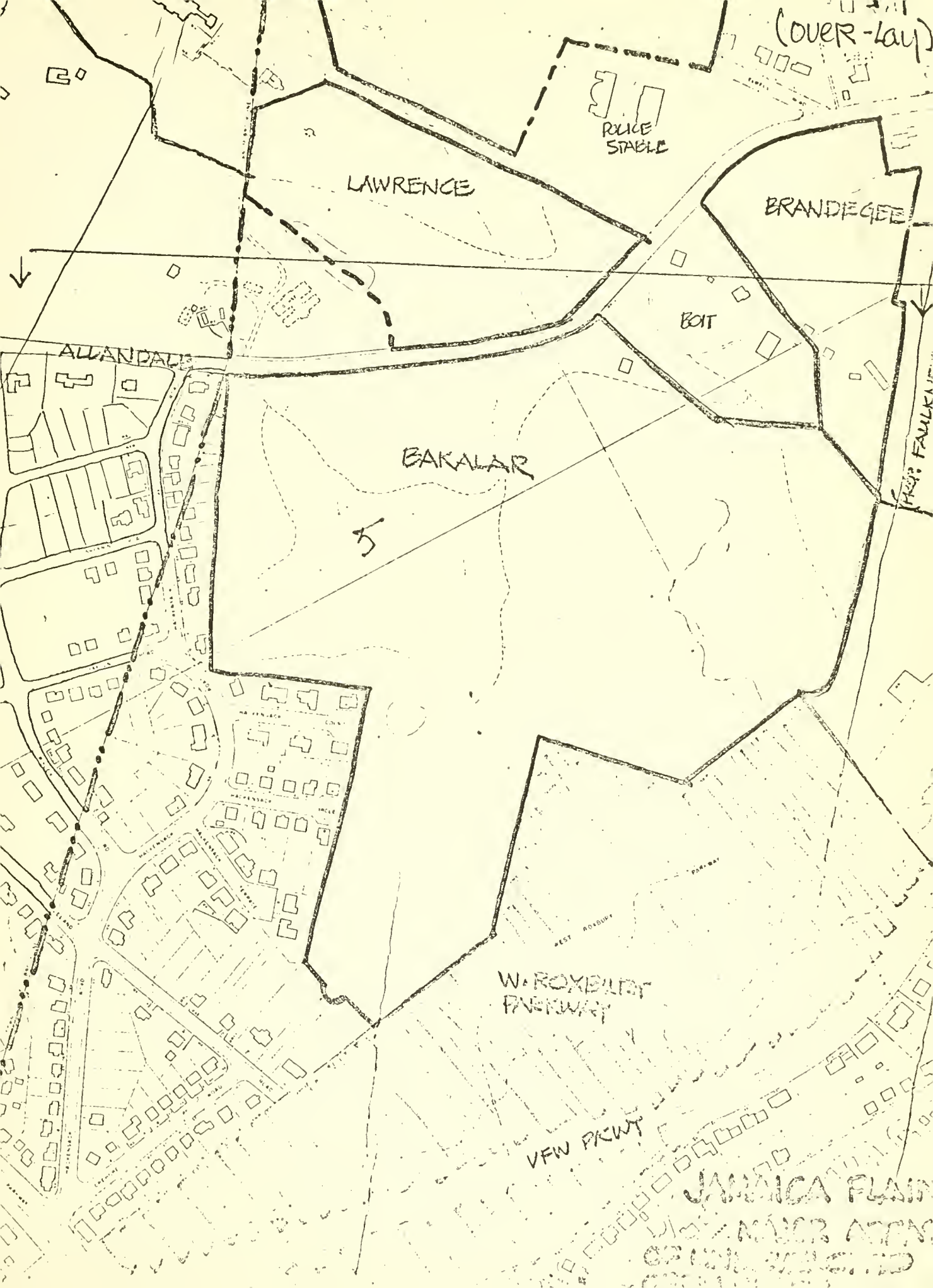

BROOKLINE
Heath Sch
Academy
BOYLSTON
Brookline Res
Sanatorium
Single Tree Hill
Play Ground
Sewall Sch
Brookline Field
Ward Pd
Sargent Pd
Leverett Pond
VA HOSPITAL
O'Connell Seminary
Holy Cross Sch
The Country Club
Jamaica Pond
Jamaica Plain
Anderson Park
Mt Walley
Nazareth Sch
Manning Sch
Green Hill
Faulkner Hospital
Walnut Hill Cemetery
Temple Emeth
Murphy Playground
ARNOLD ARBORETUM
Bussey Hill
Forest Hills
Forest Hills Cemetery
Lyndon Sch
Peaked Hill
Holy Name Sch
Parker Sch
Longfellow Sch
Roslindale
Peters Hill
Bellevue
Fallon Field
Healy Playground
St Michaels Cem
High Sch
Irving Sch
Mt Hope
Mt Hope Cemetery
Morris Sch
Mozart Sch
West Roxbury
Bates Sch
Sacred Heart Sch
Clarendon Hills
Conley Sch
Calvary Cem
New Calvary Cem
Hospital
Bellevue Hill
Water
Courthouse
RR Sta
VFW Playground


BACK BAY
BOSTON ART MUSEUM
HARVARD MEDICAL SCHOOL
PARKER HILL PLAYGROUND
VETERANS ADMINISTRATION HOSPITAL
OLMSTED PARK
JAMAICA POND
NOTRE DAME ACADEMY
WHITE SCHOOLBOY STADIUM
ROSS ESTATE
FRANKL
P.AR
ARNOLD
LONGWOOD AV
HARVARD ST
ASPINWALL AV
BEACON ST
BROOKLINE
HUNTINGTON
CYPRESS ST
PERKINS
ROCK WOOD
WASHINGTON
WARD ST
TREMONT
JACKSON SQ
EGLESTON SQ
CENTRE
CHESTNUT HILL
SHATTUCK HOSPITAL


CHESTNUT
BROOKLINE HOSPITAL
P. FRANCHI
SARGENT
CROSSWAY
SARGENT'S POND
JAMAICA POND
JAMAICA
PERKINS
HARTE


GREEK ARCHDIOCESAN THEOLOGICAL INSTITUTE
9
GREEK THEOLOGICAL INSTITUTE
CHAPMAN
(BEING DEVELOPED)
MARONITE CHURCH
ROCKWOOD
PARKER
(BEING DEVELOPED)
8
NEW SUBDIVISION
7


ENDICOTT STREET
NAZARETH SCHOOL
6
ST. PAULS
DEXTER SCHOOL
XTER SCHOOL
6 (ST. PAULS)
AMER. ACAD. OF ARTS & SCI
BRANDEGEE
POLICE STABLE
5
LAWRENCE
BRANDEGEE


(OVER-LAY)
POLICE STABLE
LAWRENCE
BRANDEGEE
BOIT
ALLANDALE
BAKALAR
W. ROXBURY PKWY
VFW PKWY
JAMAICA PLAIN

CONDOMINIUM DEVELOPMENTS IN THE BOSTON AREA

HOUSING DATA

Fairgreen Place

1. Location - Brookline (adjacent to the Country Club)
2. Developer - Village Realty Associates
3. Total Number of Units - 1965 - 20, 1969 - 14, this includes one row of six row houses, two rows of four row houses, two rows of eight row houses.
4. Construction Type - 2 1/2 story wood frame units
5. Number of Units by Type - all single units, first floor, living room, dining room, kitchen, den, bath, second floor, two bedrooms, two baths.
6. Lot Size - 262,404 square feet
7. Purchase Price or Rent - 20 unit, 1965, $60,000 each, 14 units, 1969, $76,500 each.
8. Unit Size in Square Feet - from 2,000 to 2,300 square feet
9. Construction Cost - about $25/sq. ft. to build project today
10. Development Cost - $40,000 +
11. Land Cost -
12. Parking - 2 cars per unit
13. Household Characteristics - Older households without children.

JAMAICAWAY PROJECT

1. Location - Perkins Street and Jamaicaway

2. Constructed - 1966

3. Total number of units - 286-including 14 two-bedroom duplexes

4. Average apartment unit size is about 800 square feet. The town houses are 1,100 square feet

5. Average rent was formerly $270/month. The town houses rented for $385/month

6. Lot size - about 4 acres - i.e., 71 dwelling units/acre

7. Construction Cost - $14/sq.ft.

8. Market - one of most successful luxury high rise projects in Boston. Has been 100% rented since opening.

THE IMPACT OF ALTERNATIVE DENSITIES OF DEVELOPMENT ON THE CABOT ESTATE, JAMAICA PLAIN

Boston Redevelopment Authority

June 1, 1971

I. BACKGROUND

The City of Boston as well as the community of Jamaica Plain are concerned with the impact of development on the Cabot Estate. As a result of the concern, the Boston Redevelopment Authority has been requested to undertake a series of planning and design studies. This report represents a review of the impact of various types of development.

II. METHODOLOGY

Various types of development were defined by the BRA staff. These types differ according to:

A. Density: 150, 350, 650, 750 units

B. Form: (cluster, linear (row) mogastructure, tower)

C. Construction Type: frame or elevator

The seven types of developments are shown on the horizontal axis of Table 1. These seven types can also be sub-divided, as shown, into two general categories according to their form of ownership - town house condominium or elevator rental.

Each of the seven alternative types has been analyzed in terms of its impact upon 14 factors. These factors are shown on the vertical axis of the summary Table. These factors relate to square footage, parking, density, land coverage, building mass, school children, and city taxes. Each of these factors can be described in terms of a statistic.

A comparison of the impact of each of the seven development types has revealed a variety of interesting facts. The major points are described below.

SUMMARY COMPARISON

Ownership	Town House Condominium				Rental							
Construction	Frame		Elevator									
Density	150 Units		350 Units				650 Units				750 Units	
Form	Cluster		Linear		Linear		MEGA Structure		1 Tower		3 Towers	
Factors												
Sq. Footage												
1. Per Unit	2,000		2,000		1,500		1,000		1,000		1,000	
2. Total	300,000		300,000		525,000		350,000		650,000		750,000	
Parking												
3. Spaces/Unit	2		2		2		1.65		1.65		1.65	
4. Total	300		300		700		578		1,073		1,238	
Density (dwelling units/acre)												
5. Gross	6.5		6.5		15.3		15.3		28.3		32.7	
6. Net	26		52		78		140		185		312	
Land Coverage		%		%		%		%		%		%
7. Acres Developed	5.7	25	2.9	13	4.5	19	2.5	11	3.5	15	2.1	9	2.4	10
8. Acres Undeveloped	17.3	75	20.1	87	18.9	81	20.5	89	19.5	85	20.9	91	20.6	90
Buildings												
9. Total No.	9-18'		5-18'		73-54'		3-72'		4-72'		3-198'		3-198'	
10. Height									1-198'		7-63'		7-63'	
											3-27'		3-27'	
School Children												
11. Total	120-225		120-225		105-280		14-28		26-52		26-52		30-60	
12. Avg. Public Schl.	59		59		64		9		13		13		15	
City Taxes												
13. Rent/Unit/Month	$ 789		$ 789		$ 614		$ 423		$ 404		$ 404		$ 401	
14. Taxes	$364,000		$364,000		$662,000		$455,000		$809,000		$809,000		$927,000	

CONCLUSIONS

A. Square Footage

1. The apartment size varies between 2000 square feet for the 150 unit alternative and 1000 square feet for the elevator building alternatives.

2. The total mass varies between 300,000 square feet for the 150 unit alternative and 750,000 square feet for the 750 unit alternative.

B. Parking

The parking ratio varies between 2 spaces per unit for the condominium developments and 1.65 spaces per unit for the rental developments.

C. Density

1. Gross density varies between a low of 6.5 dwelling units/acre (150 units) and a high of 32.7 units/acre at a density of 750 units.

2. The spread in net density varies between 26 units/acre for the 150 cluster alternative and 312 units/acre for the 750 tower alternative.

D. Land Coverage

1. The three tower, 650 unit alternative has the highest percentage of undeveloped open space - 91%. The 3 tower 750 unit scheme is second with 90% of the area undeveloped.

2. The 150 clustered unit and the 350 linear unit alternatives have the highest percentage of developed area, 25% and 14% respectively.

3. Three alternatives have about the same percentage of land coverage - 13%. They are the 650 one tower, the 150 linear and the 350 megastructure.

E. Building - Height

1. The alternative with the fewest number of buildings and the lowest height is the 150 unit linear scheme.

2. The development with the largest number of buildings is the 350 unit linear alternative. It is composed of 73 attached row houses.

3. The least number of buildings at a medium height (72') is the 350 unit megastructure alternative.

4. The development with the greatest height (198') and relative number of buildings (13) is the 750 unit scheme.

F. School Children

1. The most number of public school children, 59, it is assumed, would be generated from the larger apartments (the 150 unit alternative) and the least number of children, from the elevator proposals, from 9 (350 units) to 15 children (750 units).

G. City Taxes

1. Assuming City taxes will be based upon 27% of gross revenue, the return to the City would range between $455,000 for a 350 elevator unit alternative and $927,000 for the 750 units alternative.

2. The analysis of town houses has treated a condominium development as a rental project in order to compute taxes and sales prices.

3. If one assumes a tax of 27% of gross income, then 150 town houses (at 2000 sq. ft./unit) would generate $364,000 in taxes in contrast to $662,000 in taxes for 350 units (at 1500 sq. ft. per unit).

4. The taxes estimated to be generated by 350 condominium units ($662,000), are about 80% as great as the taxes ($810,000) which would be generated by 650 apartment tower units.

IV. ASSUMPTIONS

A. Density

1. Gross density = $\frac{\text{Total Units}}{\text{23 acres}}$

2. Net density = $\frac{\text{Total Units}}{\text{Area covered by building and parking structure}}$

B. Land Coverage

1. Acres developed = area covered by buildings and parking structures

2. Acres undeveloped minus 23 acres minus acres developed

C. Taxes

It is not possible at this time to project the rate and terms by which a luxury condominium or rental development on the Cabot Estate would be taxed. For purposes of analysis in this study it was assumed that both projects would be taxed at 27% of gross income. (See BRA Summary Study on the Cabot Estate).

D. School Children

See appendix study by BRA "Determination of Public School Children by Density and Type of Development".

CHARACTERISTICS OF CONDOMINIUM DEVELOPMENTS IN THE GREATER BOSTON AREA

Boston Redevelopment Authority
Planning Department

June 1, 1971

I. BACKGROUND

The Boston Redevelopment Authority has undertaken an analysis of various densities of development upon the Cabot Estate. This study has required a range of information relating to unit size, marketing, taxes, construction costs, etc. This information, in so far as it is related to luxury hi-rise rental developments, was readily available to the BRA. There was very little data, on the other hand, concerning town house and hi-rise condominium developments. For this reason, a special survey was undertaken. The results of this study are presented below.

II. METHODOLOGY

The following study concerns itself with analysis of eight factors which are crucial to the design and marketing of condominium developments. These are:

1. Site plan
2. Unit size
3. Rents or sales price
4. Construction cost
5. Taxes
6. Marketability and staging
7. Location
8. Other

Each factor is analyzed in terms of a survey of luxury town house condominium projects in the Boston area. Much of this information is included in the appendix.

III. CONCLUSIONS

A. Site Plan

There is no pattern to the site plan of newly constructed condominium developments. There are, on the other hand, about as many hi-rise as town house condominium projects in the Boston area.

B. Unit Size

The average unit size for luxury town house projects in the Boston area is about 1,600 sq. ft.

C. Rent or Sales Price

1. The average price of luxury town house condominium projects surveyed in the Greater Boston Area is about $55,000.

2. The average price of condominium units in locations similar to the Cabot Estate (Fairgreen Place and Fuller Brook Park) is about $72,000.

3. The average sales price of newly constructed single-family homes in the Jamaica Pond area is $40,000.

D. Development Costs

1. Development costs for luxury town house units range between $20-$25 a square foot.

2. High cost items in construction are elevators and covered parking.

E. Taxes

A town house condominium development will generate more taxes per unit then a hi-rise condominium project because the former is usually of higher value.

F. Marketability and Staging

1. Although there is a theoretical yearly demand for 1,000 single-family units in the City of Boston, this demand has only been tested in several small condominium conversions in the Back Bay and Waterfront areas.

2. Staging

In the Greater Boston Area, there are no existing or proposed condominium projects either town house or hi-rise which consist of 350 units. The largest project is 250 units proposed for the Hotel Beaconsfield site in Brookline. All condominium town house projects have been staged or are a conversion from rental housing.

G. Location

1. The vast majority of town house condominium developments in the Greater Boston Area are located in urban areas where shopping and public transit are available.

2. A town house condominium development in a location similar to the Cabot Estate is Fairgreen Place. It is located adjacent to the country club in Brookline.

H. Other Factors

1. Households

Almost all luxury town house condominium developments have tenants of 50 years of age or above whose children have gone off to college.

2. Parking

A ratio of 2 spaces per unit (including guest parking) seems reasonable for the Cabot Estate location.

IV. THE FACTORS

A. Site Plan

The site plan is a critical factor in the design and marketability of a project. For purposes of the following discussion, one can assume that there are four alternative site plans:

1. linear (row) housing
2. cluster housing
3. terraced housing
4. Hi-rise housing

The first two generic site plans are appropriate for town house design as well as condominium ownership.

Of the four town house designs, row housing presents the least problems in terms of condominium ownership. There are no public hallways to maintain and doormen are not necessary. Terraced housing would probably be the most difficult type of housing to maintain as a condominium. There are large public areas and security would be complex.

There appears to be no pattern to the site plan in new construction condominium projects. Hi-rise design is found at 2000 Commonwealth Avenue, Boston and 1856 Beacon Street, Brookline. The Fuller Brook Park project is a cluster design; Fairgreen Place is a row house site plan. The majority of the converted condominium projects are of a row house site plan.

Existing hi-rise construction is in several cases being converted into condominium ownership. These projects are located in Cambridge, and Boston. They are listed in the appendix.

B. Unit Size

1. The average unit size in luxury hi-rise housing is 900 sq. ft.

2. The average unit size in luxury condominiums is about 1600 sq. ft. (See Table 5, Gladstone and Housing Data, Koff)

3. The range in unit size for luxury town house projects is between 1100 and 2300 sq. ft. (See Gladstone and Koff data)

C. Rent or Sales Price

1. The average range in sales price of luxury condominium units, both new construction or conversion is $40,000 to $70,000.

2. Condominium developments with sales prices above $70,000 are located in Brookline; Fairgreen Place ($76,000), in Wellesley; Fuller Brook Park ($87,000), and in Boston; 260 Beacon St. ($80,000) and Lewis Wharf ($100,000).

3. The Glovers Landing project is being converted to condominium form of ownership at 100 times rental price. This is a general rule of thumb for determining the sale price of condominium units.

4. The average price of new single-family homes in the Jamaica Pond sector, is $40,000. This price is based on the sale of homes between 1969-1971 on Parkside Drive. This is the newest sub-division in Jamaica Plain. It is located across from the Larz Anderson Park.

D. Construction Costs

1. Development costs vary between $20-$30 a sq. ft. A specific building system and unit size must be defined before this can be estimated with accuracy.

2. Covered parking and elevators are high cost construction items.

E. Taxes

The Assessing Department is presently undergoing a review of its procedures for assessing. A definitive estimate of City taxes is therefore impossible.

At this point in time, it would appear that luxury rental and condominium developments are taxed at about the same rate; approximately 27% of gross income. But on a per unit basis, a condominium development at the lowest densities would generate more taxes since the units, being larger, would have a greater market value.

F. Marketability and Staging

1. The experience in marketing town houses as well as condominium developments in the Boston area is very marginal. The vast majority of the luxury projects in the City of Boston are hi-rise apartments - 50-60% efficiency and 1 br. units and rental.

2. The Land Utilization and Marketability Report completed for Pat Franchi states on page 17 that there is a yearly luxury housing demand for 1000 sinnle-family and 1000 multi-family units. In spite of this conclusion, the "single-family" luxury housing market in Boston, with the exception of some small condominium conversion projects in Back Bay and the Waterfront has not been tested.

3. Staging - there are no condominium projects of 350 units or more in the Boston area.

The Wellesley project (150 units) will be constructed in 3 stages of 50 units each. The 360 unit condominium project proposed for Middleton will take place in two stages.

G. Location

1. The vast majority of existing condominium developments in the Greater Boston Area are located in urban areas where there is convenient shopping and public transit.

2. A town house condominium development was successfully marketed in a location near the Cabot Estate. This is the Fairgreen Place development which is located adjacent to The Country Club in Brookline.

3. The largest condominium developments proposed for the Greater Boston Area are in suburban locations; Danvers, Acton.

H. Other Factors

1. Household Characteristics - The vast majority of the luxury, town house condominium projects are designed for families whose children have gone off to college. There are no known luxury, town house developments for families with children.

2. Parking - The Jamaicaway project provides 1-1 parking plus 40 (1/7 of total units) visitor spaces. The Fairgreen Place complex provides space for about 2 cars per unit. Most of the parking in these projects is below grade.

APPENDIX

Development Cost Data, Massachusetts Housing and Finance Agency

Condominium Developments in the Boston Area

Fairgreen Place (Condominium)

Fuller Brook Park (Condominium)

Glover Landing (Conversion to Condominium)

Danvers (Proposed Condominium Development)

General Information on Developing Condominium Projects

Condominiums in Massachusetts

Development Cost Data:
Massachusetts Housing & Finance Agency, March, 1971

The following information was received from MHFA. The data represents average cost figures of wood frame as well as class I projects which have received MHFA authorization.

I. Class I Construction (11 projects)

Average development cost/unit	$20,676
Average cost per square foot	$20.93
Average number of bedrooms	1.25
Average unit size	1,006 square feet
Land acquisition cost/unit	$2,197

Significant differences exist between union and non-union Class I construction. The average development cost of union construction was $22,659/unit; the average cost of non-union construction was $18,509.

II. Wood Frame Construction

A. Average cost figures:

development cost/unit	$17,176
cost per square foot	$14.74
number of bedrooms	1.85
unit size	$1,052
land cost/unit	$1,357

B. Range of variation:

development cost/unit	$14,555 - $19,800
cost per square foot	$13.25 - $20.14
number of bedrooms	1.50 - 3.74
unit size	903 sq. ft. - 1,286 sq. ft.
land cost/unit	$750 - $1,720

II. Amenities included in development cost figures

parking (mostly at grade)
carpet
garbage disposal
air conditioning
play area

IV. Definition of terms

development cost and square feet cost figures include construction, fees, parking, amenities, site preparation.

CONDOMINIUM DEVELOPMENTS IN THE BOSTON AREA

HOUSING DATA

Fairgreen Place

1. Location - Brookline (adjacent to the Country Club)
2. Developer - Village Realty Associates
3. Total Number of Units - 1965 - 20, 1969 - 14, this includes one row of six row houses, two rows of four row houses, two rows of eight row houses.
4. Construction Type - 2 1/2 story wood frame units
5. Number of Units by Type - all single units, first floor, living room, dining room, kitchen, den, bath, second floor, two bedrooms, two baths.
6. Lot Size - 262,404 square feet
7. Purchase Price or Rent - 20 unit, 1965, $60,000 each, 14 units, 1969, $76,500 each.
8. Unit Size in Square Feet - from 2,000 to 2,300 square feet
9. Construction Cost - about $25/sq. ft. to build project today
10. Development Cost - $40,000 +
11. Land Cost -
12. Parking - 2 cars per unit
13. Household Characteristics - Older households without children.

HOUSING DATA

Fuller Brook Park

1. Location - Wellesley, housing in park-line atmosphere
2. Developer - Spalding & Slye (Mr. Boyle and Mr. Krentzjans)
3. Architect - Sam Glaser
4. Total Number of Units - 150 units, to be constructed in three stages
5. Construction Type - four story elevator wallbearing, precast concrete deck, atrium in place of a corridor
6. Number of Units by Type - Stage I: 4-1 bedroom (1120 sq. ft. per unit) 26-2 bedroom (1550 sq. ft. per unit) 22-2 bedroom and den (1850 sq. ft. per unit)
7. Lot Size - 7.8 acres
8. Purchase Price - (condominiums) $49,000 for the one bedroom unit, $87,500 for the three bedroom units
9. Units Size and Square Footage - averages of 1,650 sq. ft. per unit
10. Construction Cost - about $21 a sq. ft.
11. Development Cost -
12. Land Cost -
13. Parking - 1.5 spaces per unit, most of parking below grade
14. Household Characteristics - 50 years and older, children grown-up
15. Market Information - based on survey of perspective tenants in Wellesley

HOUSING DATA

Glover Landing

1. Location - Marblehead
2. Developer - S. R. Brainard
3. Architect - Chapman & Goyette
4. Total Number Units - 114
5. Construction Type - wood frame
6. Number of units by type

   efficiency - 9

   1 Bedroom - 2

   2 Bedroom - 86

   3 Bedroom - 17
7. Lot Size - 25 du/acre - 4.5 acres
8. Purchase Price - 100 times rental

   average rental = $350 month

   land lease agreement an additional $300 year
9. Unit Size - 1 Bedroom - 1 bay - 40' x 15' (600 sq. ft.)

   2 Bedroom - 2 bays - (1200 sq. ft.)
10. Construction Cost
11. Development Cost - About 10% of sales price in fees for conversion to condominium.
12. Land Cost
13. Parking - 1.6 spaces/unit
14. Household Characteristics - young professionals, couples whose children no longer live at home
15. Operating Costs = $.86 sq. ft./month

HOUSING DATA

Danvers

1. Location - Topsfield, Middleton, Danvers, 500 acre site
2. Developer - Joseph Mass and Robert Harpell, Cumborline, Rhode Island Phone Number 401-333-5727
3. Architect - Hans Graham
4. Total Number of Units - Stage I: 164 condominiums, 152 rental apartments, 60 single-family homes, a golf course, motel, and office Stage II: 160 condominiums and 152 rental apartments
5. Construction Type - 10 to 12-story hi-rise slab tower
6. Number of Units by Type - Mostly one to two-bedroom units
7. Purchase Price or Rent - Rent $200 to $450; Sales about $45,000 for each unit

GENERAL INFORMATION ON CONDOMINIUM DEVELOPMENTS

1. Have flexibility to sell or rent units if condominium.

2. If project to be staged, condominium development is often preferable to rental. The former allows the developer to re-capture his investment in land, etc. It also provides the cash flow necessary for successive stages.

3. Financing of condominium units is often at lower rates than rental properties since the mortgages will be held by individual households rather than a single corporation.

Back Bay Federation for Community Development
419 BOYLSTON STREET
BOSTON, MASS. 02116
TELEPHONE: 267-8070

12-1-70

CONDOMINIUMS IN MASSACHUSETTS

And Recently Established Cooperatives

1. CONDOMINIUMS

Boston

20 Gloucester Street (1969) Conversion $25 - 48,000	7 units
260 Beacon Street (1970) Conversion $32 - 80,000	11 units
192 Commonwealth Avenue (1970) Conversion $50 - 71,000	9 units
61 Mt. Vernon Street (1970) Conversion	
2000 Commonwealth Avenue (1969) Construction $20 - 65,000	133 units
Lewis Wharf (1970) Rehab $35 - 100,000	116 units
South End location (1970) Conversion	24 units
27 Chestnut Street (planning) Conversion	32 units
70 Mt. Vernon Street (planning) Conversion	
191 Commonwealth Avenue (planning) Conversion	16 units

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TREASURER JOHN W. EWELL CLERK BRUCE BOORMAN EXECUTIVE DIRECTOR DANIEL J. AHERN

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419 BOYLSTON STREET
BOSTON, MASS. 02116
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Brookline

Fairgreen Place (1965) Rehab $45 - 50,000	20 units
1856 Beacon Street (1970) construction $25,900 - 44,000	26 units
30 St. Paul Street (1970) rehab $26,000 - 29,400	49 units
Kent Street conversion	5 units
Hammond Pond Pkwy. (1970) conversion Town houses $58 - 60,400	8-10 units
Hammond Street (1970) conversion Town houses $34,900 - 39,900	8-10 units
Hotel Beaconsfield Site (planning) construction	250 units
Carlton St. (planning) conversion	5 units

Cambridge

902 Memorial Drive (1970) conversion $28 - 54,000	36 units
205 Mt. Auburn St. (1970) conversion $25 - 35,000	16 units
Concord Avenue (1971) construction $40 - 60,000	16 units

Newton

Glencoe Corp., Commonwealth Ave. (1968) rehab	15 units

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Wellesley

Wellesley Green (planning) construction — 170 units
$57,500 - $87,500

Marblehead

Glover Landing (1970) conversion — 114 units
$20 - 65,000

Salem

Loring Square (planning) construction — 37 units
$32,500 - 39,500

Acton - Littleton

_____ (planning) construction — 700 units
$20 - 35,000

Danvers

US 1 & 95 (1971) construction — 308 units
$40 - 70,000

Falmouth

_____ (planning) construction — 30 units
$25 - 40,000

Hyannis

_____ (planning) construction — 200 units
$23,000 up

Orleans

Old Colony Village (1969) construction
$21,900 - 39,900

West Yarmouth

Camp Street (1970) 56 units
$15,200 up

2. RECENTLY ESTABLISHED MIDDLE-LUXURY COOPS

Boston

180 Beacon Street (1970) conversion

Brookline

222 Babcock Street, (1970) Conversion

Cambridge

1010 Memorial Drive (1970) conversion

Upland Corp. (1963) conversion

3. MODERATE RENTAL COOPS*

Boston

Academy Homes II (1968) Roxbury 221d3	315 units
St. Joseph's (1969) Roxbury 221d3	137 units
Charles Newtowne (1970) Charlestown 221d3	262 units
**West Concord St. (1971) South End 236	
**282 Columbus Avenue (1970) South End 236	

Brookline

Brookline Coop Housing (1965) 221d3	116 units

Framingham

Cochituate Coop Homes (in construction) 236	160 units

Stoughton

Presidential Court (1970) 236	104 units

Holyoke

Whitney Farms (1968)
221d3

Springfield

Nusery St. (1964) 157 units
236

* - All of these projects were financed under FHA-HUD moderate income programs, Section 221d3 or Section 236.

Rents, which we have on file range from a low of $86 for a 1 bedroom unit in one project to $160 for a large unit in a later project.

** - All projects are new construction except for these two South End rehab projects which have a total of 71 units.

4. NOTES

The above listings are not necessarily complete because there is no official directory of condominiums and cooperatives. However, this list based on extensive research appears to be reasonably comprehensive.

The dates given generally indicate the year in which each project was completed or open to occupancy. In some cases it is the year sales began. Actually, the dates give only a rough idea of the sequence of projects.

Since we hope to keep this listing up to date we welcome your suggestions, corrections and additional information.

PRICES, PROFITABILITY AND MARKETABILITY OF ALTERNATIVE DENSITIES AND TYPES OF DEVELOPMENT ON THE CABOT ESTATE, JAMAICA PLAIN.

BOSTON REDEVELOPMENT AUTHORITY

DISTRICT PLANNING

Laurence Koff

ASSISTED BY RESEARCH DEPARTMENT

Tina Freeman, Lowell Richard

May, 1971

BACKGROUND

Site accommodation studies have been undertaken by the BRA design staff to test the visual impact of various alternatives of development upon the Cabot Estate. Basically, these alternatives are variations of two design schemes: low-rise frame and elevator town house condominiums and medium high-rise elevator rentals. In order to assist in evaluating the feasibility of these design alternatives, it was suggested that a financial feasibility analysis be undertaken.

THE PROBLEM

A financial feasibility analysis for the Cabot Estate must be undertaken in three stages. First, one has to determine what rents will result from each alternative given certain assumptions with respect to unit size, construction cost, financing, profit, etc. Second, one has to establish the average rent per unit which one assumes to be marketable. And finally, one must compare the projected rents to that figure which one assumes to be marketable. A project, then, is assumed to be financially feasible if the rents are within a reasonable (5%) range of marketability.

The preceeding steps have been followed. The conclusions are summarized below:

CONCLUSIONS

I. THE IMPACT OF A CHANGE IN DENSITY ON RENTS OR SALES PRICES

A. Elevator Rental Alternatives

Given the assumptions upon which this analysis is based, (1,000 square feet per unit, $25 per square foot for development cost, $1,200,000 for land, 10% before tax return on equity, 75% mortgage for 30 years at 9% interest) one finds THAT THERE IS NO SIGNIFICANT DIFFERENCE IN AVERAGE MONTHLY RENTS AT A DENSITY OF 350, 650, 750 AND 1,000 UNITS (SEE TABLE 1).

B. Town House Condominium Alternatives

GIVEN THE VARIABLE ASSUMPTIONS UPON WHICH THE TOWN HOUSE ANALYSIS IS BASED ($22 per square foot development cost, 2,000 square feet per unit for the 150 unit alternative, and $25 per square foot for development cost, 1,500 square feet per unit for the 350 unit alternative), and the rule of thumb that the sales price of condominiums are 100 times the monthly rent, ONE FINDS THAT THE 350 TOWN HOUSE UNIT ALTERNATIVE WOULD SELL FOR $17,500 LESS THAN THE 150 UNIT ALTERNATIVE; $61,400 VS. $78,900. (See Table 2)

II. THE IMPACT OF A CHANGE IN DENSITY ON PROFIT

All the alternatives analyzed assume a before tax return on equity of 10%.

A. Elevator Rental Alternatives

Assuming a double-declining balance method of depreciation, THE AFTER TAX RETURN ON EQUITY IS ALMOST THE SAME AT A DENSITY OF 350 UNITS (13.2%) AS IT IS AT A DENSITY OF 1,000 UNITS (13.8%). (SEE TABLE 3)

B. Town House Condominiums

1. Without more knowledge concerning the sales of condominiums, one cannot establish what advantages in return, if any, would accrue by increasing the density from 150 to 350 units.

2. The sales prices of $61,400 and $78,900 assume a 10% return on equity before Federal taxes.

III. MARKETABILITY

A. Elevator Rental Alternatives

The market consultants to Pat Franchi, Minot, DeBlois and Maddison, projected in their report, Land Utilization and Marketability Analysis p. 32, that the average rent for a unit would be $390 per month (in 1971 prices).

On the basis of this information one can assume (given a 5% margin) that the DENSITIES OF 650, 750, AND 1,000 UNITS WOULD BE MARKETABLE (SEE TABLE 4). THE RENTS AT A DENSITY OF 350 DWELLING UNITS, ON THE OTHER HAND, ARE JUST OUTSIDE THE 1971, 5% MARGIN RANGE.

B. Town House Condominium Alternatives

1. A rule of thumb exists which says that condominiums sell at 100 times their projected rent. Given this principle, the town house unit alternatives would sell at $78,900 for 150 units and $61,400 for the 350 unit alternatives.

2. The average price of luxury condominium units in the Greater Boston area is $55,000.

3. The average price of condominium units in locations similar to the Cabot Estate (Fairgreen Place and Fuller Brook Park) is $72,000.

4. There are no market studies in existence which indicate the demand, i.e., sales price and number of units, for condominium developments in the Jamaica Plain - Boston area.

5. The study, Land Utilization and Marketability Analysis, by Minot, DeBlois and Maddison indicated on page 17 that there is a demand in Boston for 1,000 single-family units a year. Sales of new single family homes in Jamaica Plain have been about $40,000 per house.

6. BOTH TOWN HOUSE ALTERNATIVES WOULD HAVE TO SELL ABOVE THE AVERAGE PRICE OF EXISTING CONDOMINIUM UNITS IN THE GREATER BOSTON AREA AND THE SALES PRICE OF NEWLY CONSTRUCTED SINGLE FAMILY HOMES IN JAMAICA PLAIN.

7. THE 350 UNIT TOWN HOUSE ALTERNATIVE COULD SELL WITHIN THE RANGE OF CONDOMINIUM PROJECTS AT FULLER BROOK AND FAIRGREEN PLACE. THE 150 UNIT ALTERNATIVE WOULD HAVE TO BE REDUCED FROM AN AVERAGE UNIT SIZE OF 2,000 SQUARE FEET TO 1,500 SQUARE FEET IN ORDER TO SELL WITHIN THIS SAME RANGE (SEE TABLE 5).

IV. TAXES

A. Elevator Rental Alternatives

Assuming City taxes will be based upon 27% of gross revenue, THE RETURN TO THE CITY WOULD RANGE BETWEEN $455,000 FOR 350 UNITS AND $1,200,000 FOR 1,000 UNITS. (SEE TABLE 6)

B. Town House Condominium Alternatives

1. The analysis of town houses has treated a condominium development as a rental project in order to compute taxes and sales prices (see Methodology).

2. IF ONE ASSUMES A TAX OF 27% OF GROSS INCOME, THEN 150 TOWN HOUSES (AT 2,000 SQUARE FEET PER UNIT) WOULD GENERATE $364,000 IN TAXES, IN CONTRAST TO $622,000 IN TAXES FOR 350 UNITS (AT 1,500 SQUARE FEET PER UNIT) (See Table 6)

3. THE TAXES ESTIMATED TO BE GENERATED BY 350 CONDOMINIUM UNITS - $662,000 - ARE ABOUT 80% AS GREAT AS THE TAXES ($810,000) WHICH WOULD BE GENERATED BY 650 APARTMENT UNITS.

V. THE IMPACT ON RENTS WHEN THE COSTS ASSUMED FOR VARIOUS FACTORS ARE CHANGED

A. The Impact of a Change in Land Costs Upon Rent

IF ONE ASSUMES A LAND COST OF $1,200,000, A 25% INCREASE OR DECREASE IN THIS PRICE WILL HAVE A MEASURABLE IMPACT ON RENTS ONLY AT THE LOWEST DENSITIES OF DEVELOPMENT, I.E., 150 AND 350 UNITS. IN ADDITION, THE COST OF LAND IS NOT AS SIGNIFICANT A FACTOR IN CONDOMINIUM DEVELOPMENTS AS IT IS IN RENTAL PROJECTS.

1. With the elevator apartment alternatives, for example, a 25% shift in land costs at a density of 350 units results in a $10 difference in monthly rents in contrast to a difference of $4 a month rent at a density of 1,000 units. (See Table 7)

2. If one assumes that the town house condominiums will sell at 100 times the monthly rental, one sees that a 25% decrease in land costs would result in a sale price shift for 150 units of from $78,900 to $76,900. Given the price of luxury housing, it would be difficult to prove that a $2,000 change in sales price had a dramatic impact on the marketability of the unit. (See Table 8)

B. The Impact of a Change in Unit Size on Sales Price of 150 Unit Condominium Alternative

The impact of a change in unit size on rents is shown on Table 9. If the average unit is decreased from 2,000 to 1,500 square feet, the sales price will decrease by approximately $18,000. IN OTHER WORDS, A 1/3 ~~INCREASE~~ decrease IN UNIT SIZE IN THIS CASE RESULTS IN A 28% DECREASE IN SALES PRICE.

C. The Impact of a Change in Development Costs on Rents

The impact of a change in development costs is shown on Table 9. IF DEVELOPMENT COSTS IN THIS EXAMPLE ARE INCREASED BY 14%, FROM $22 A SQUARE FOOT TO $25 A SQUARE FOOT, RENTS INCREASE BY 9%.

METHODOLOGY

I. Process

The following process was followed to establish rents and, in turn, condominium prices.

A. Development cost for housing based on calculations of development cost per square foot and land cost was determined.

B. Yearly mortgage cost for above development budget was established.

C. Yearly operating costs, vacancy allowance, taxes and profit were added to yearly mortgage costs.

D. Above sum was divided by total number of units to determine cost per unit per year.

E. Yearly unit cost was divided by 12 to establish monthly unit cost.

F. This cost is the monthly rent. It represents that sum of money needed per unit per month to pay for mortgage costs, vacancy, operating expenses, taxes and profit.

G. The price for condominiums is assumed to be 100 times monthly rent. This procedure is highly generalized and should be recognized as only a rule of thumb estimate of sales price.

II. Assumptions Constant for Analysis of All Alternatives

A. Land cost = $1,200,000

B. Operating cost = $.75/sq. ft./year

C. Vacancy factor = 5% of gross income

D. City taxes = 27% of gross income

E. Return on equity before Federal taxes = 10%

F. Mortgage terms = 75% first mortgage at 9% interest for 30 years

G. Equity = 25% of development costs

III. Variable Assumptions

A. Elevator rental (350, 650, 750 units)

1. size of units = 1,000 square feet

2. development cost = $25/sq. ft.

B. Elevator condominium (350 units)

1. size of unit = 1,500 square feet

C. Town house condominium (150 units)

1. size of unit = 2,000 square feet

2. development cost = $22/sq. ft.

TABLE 1 THE IMPACT OF A CHANGE IN DENSITY ON RENTS
ELEVATOR BUILDING ALTERNATIVES

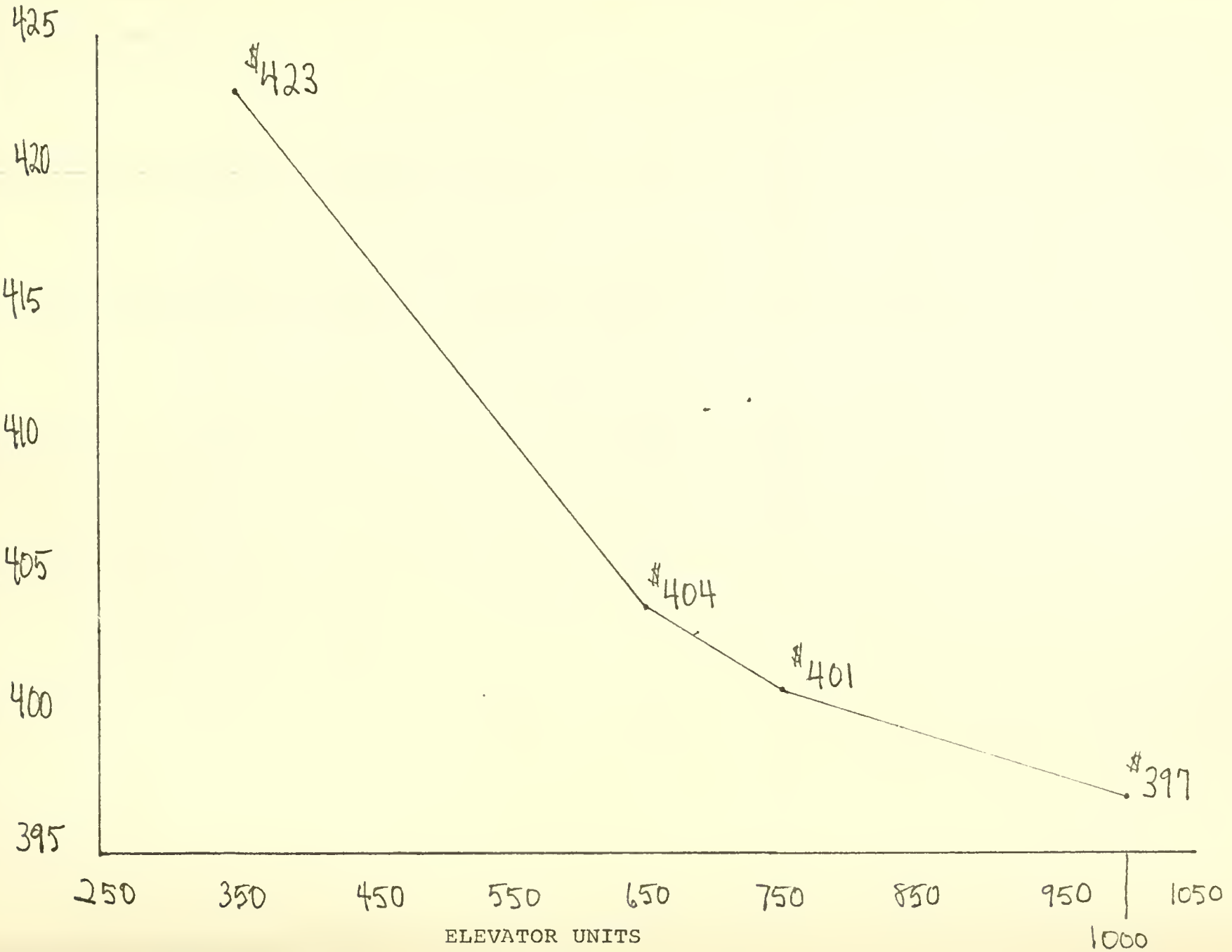


TABLE 2

IMPACT OF A CHANGE IN DENSITY, UNIT SIZE AND DEVELOPMENT COST ON SALES PRICE OF TOWN HOUSE CONDOMINIUM ALTERNATIVES

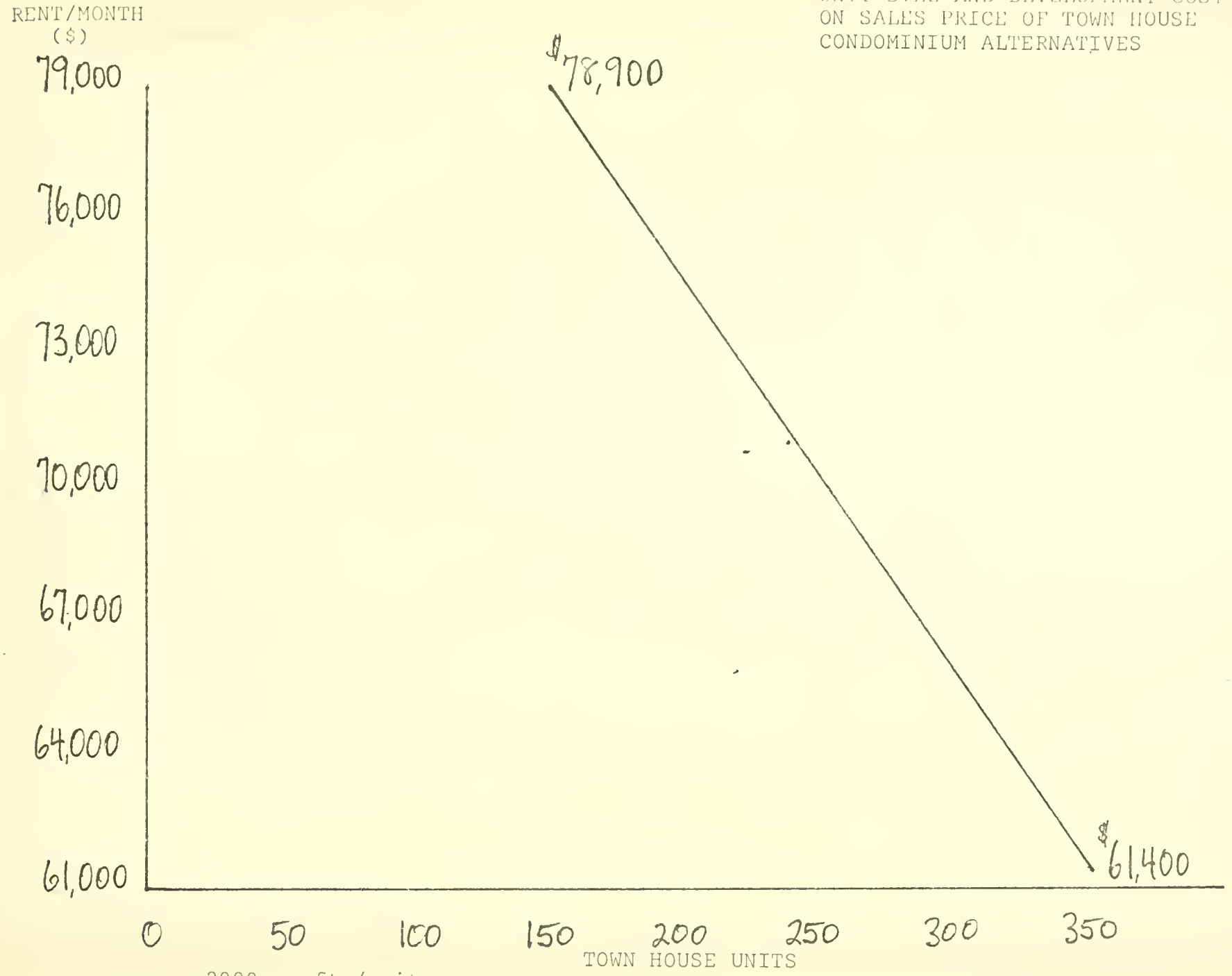


TABLE 3

THE IMPACT OF A CHANGE IN DENSITY ON AFTER TAX RATE OF RETURN
ELEVATOR RENTAL ALTERNATIVES

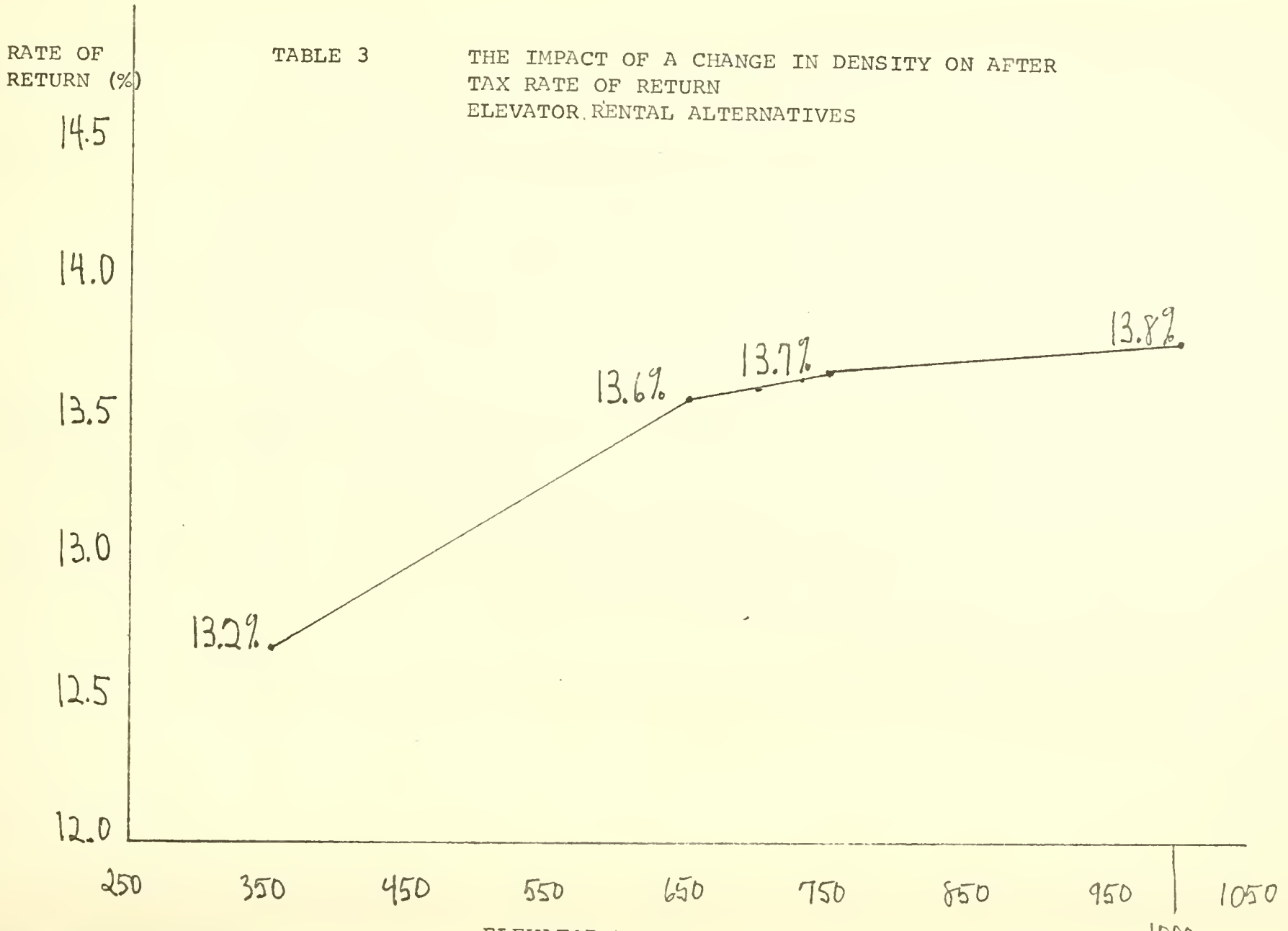


TABLE 4
MARKETABILITY OF ELEVATOR RENTAL ALTERNATIVES

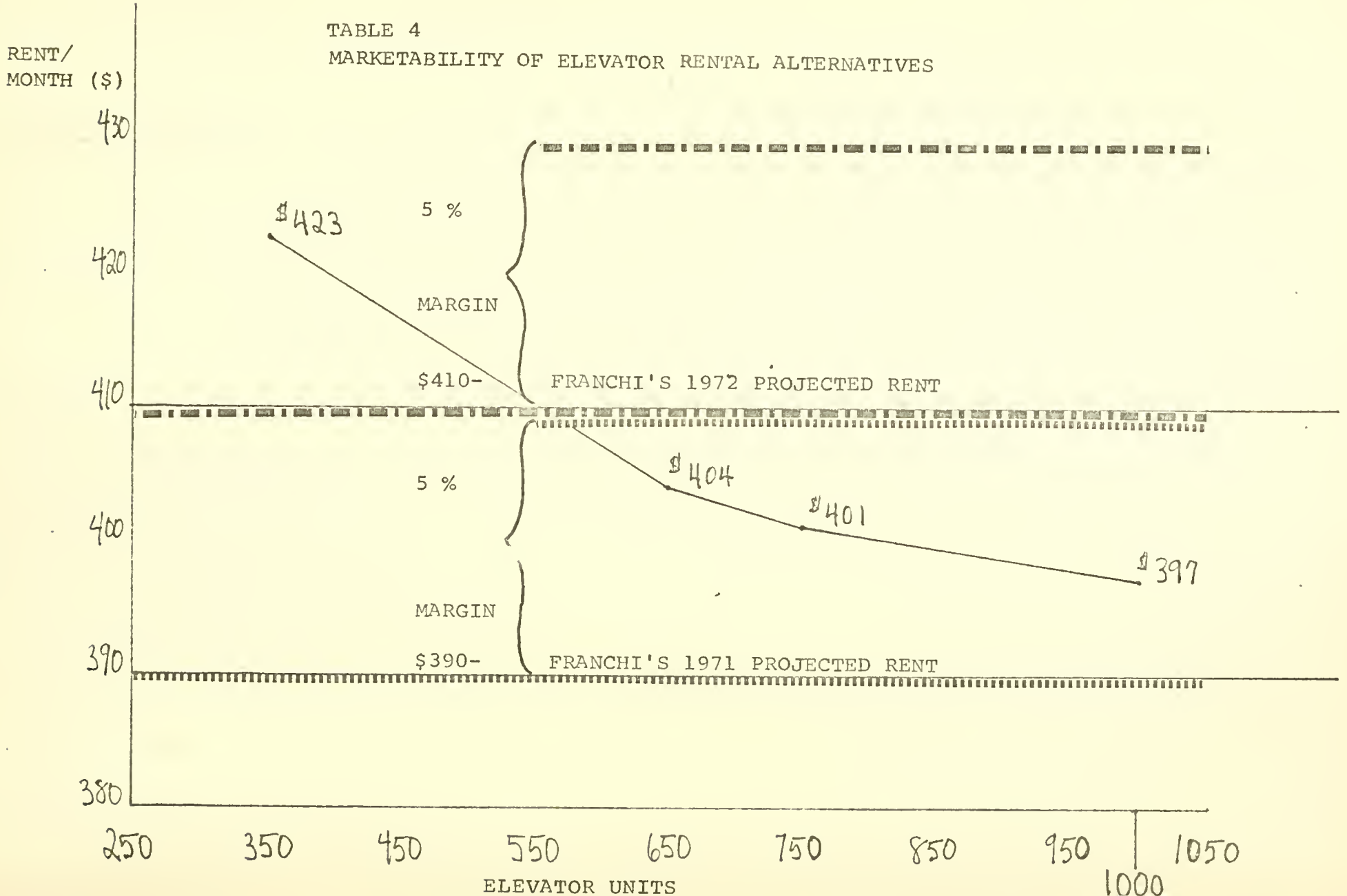
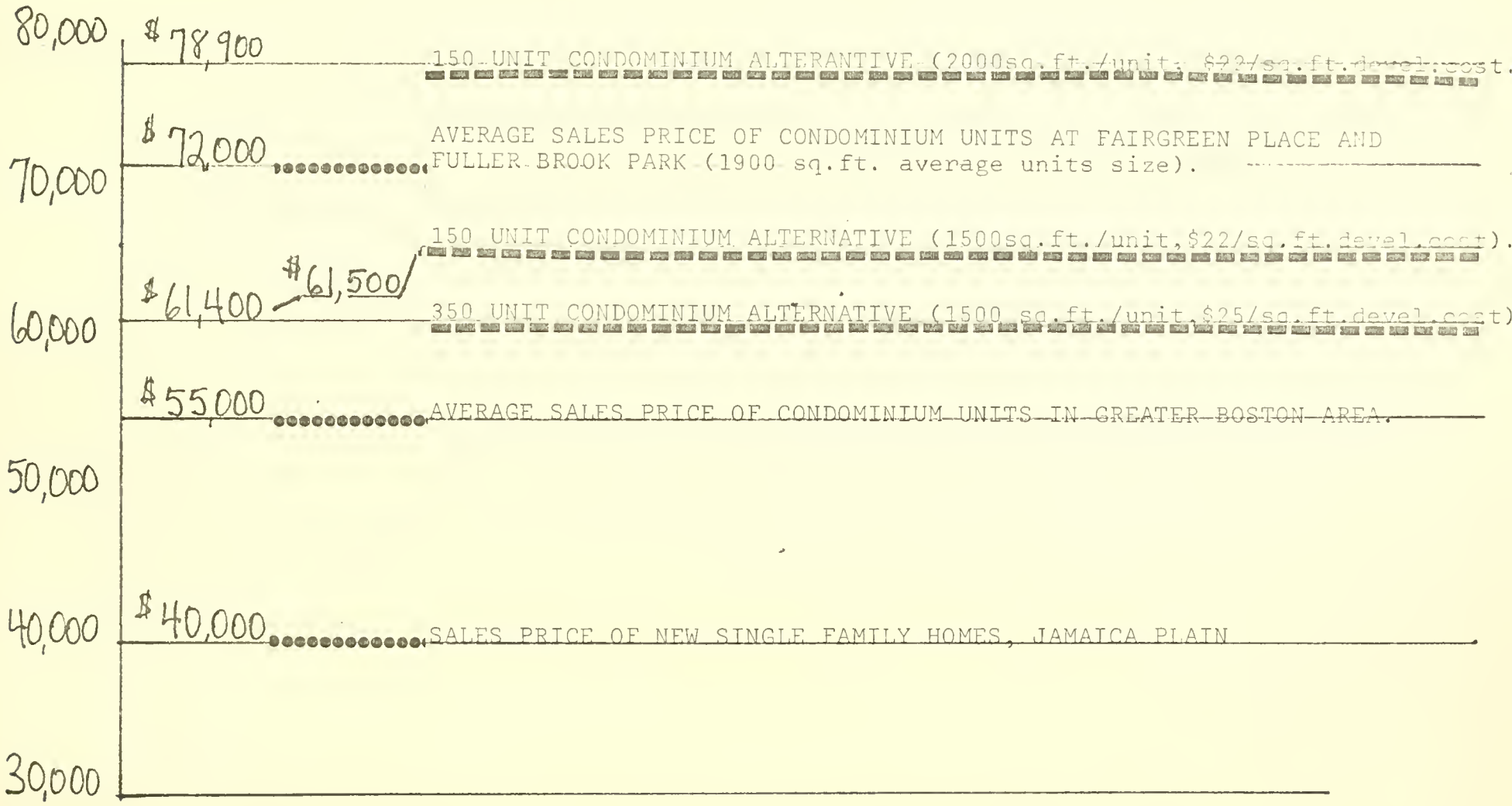


TABLE 5 MARKETABILITY OF TOWN HOUSE CONDOMINIUM UNITS



SINGLE FAMILY - CONDOMINIUM MARKET PRICES

TABLE 6 TAX RETURN TO THE CITY

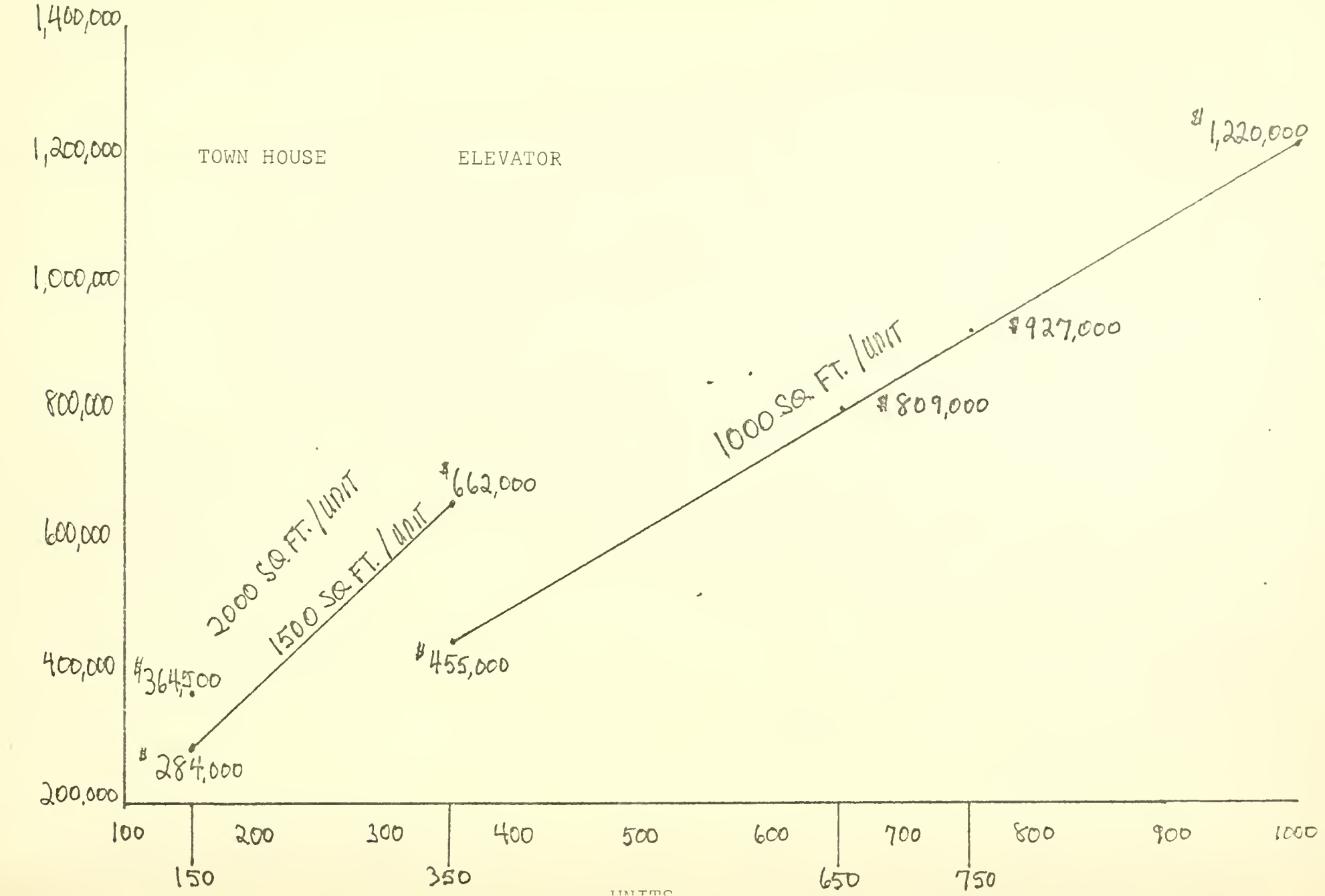


TABLE 7

THE IMPACT OF A CHANGE IN LAND COSTS ON ELEVATOR UNIT RENTS

LAND COST

A= $ 600,000
B= $ 900,000
C= $1,200,000
D= $1,500,000

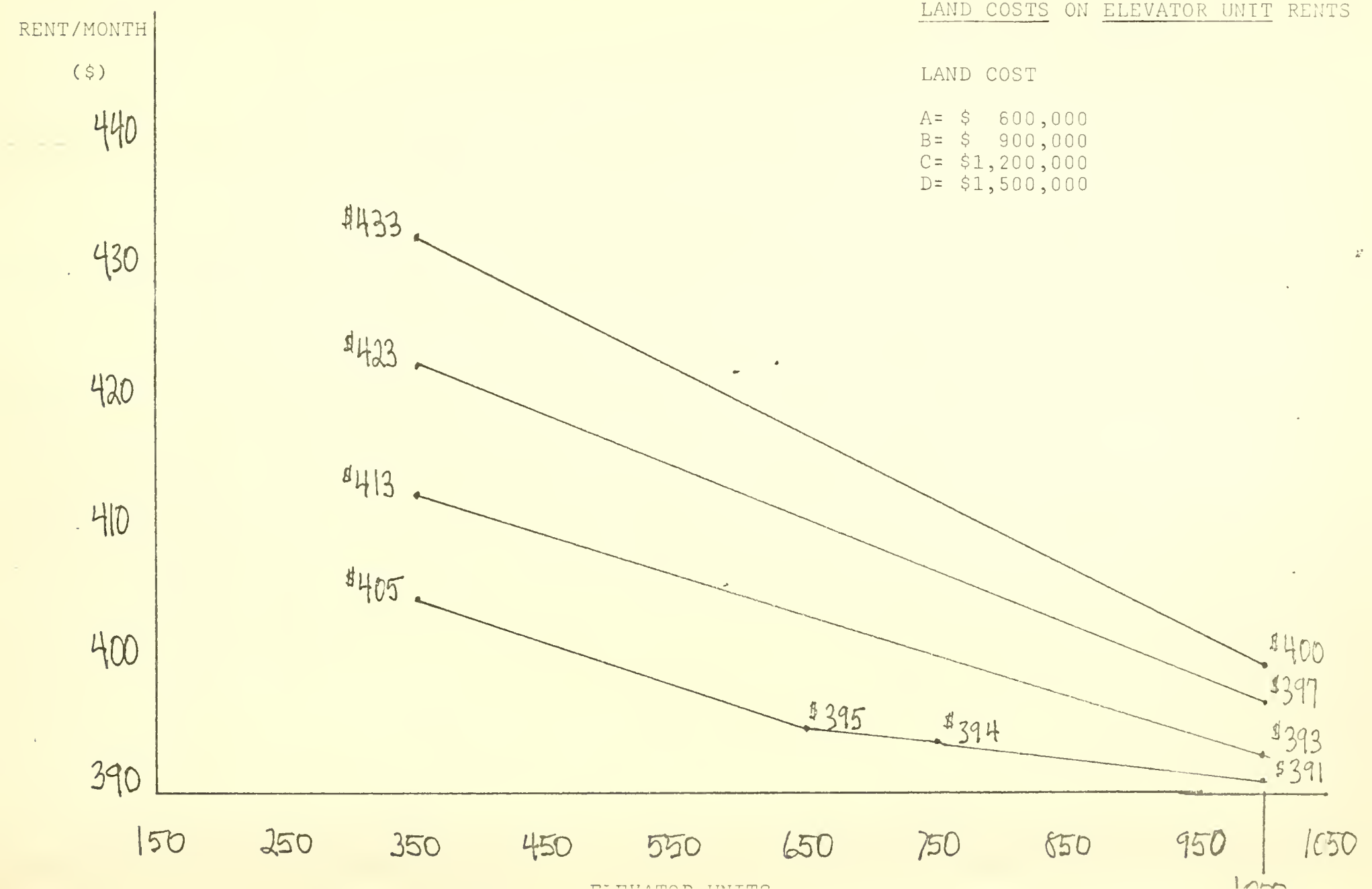


TABLE 8

THE IMPACT OF A CHANGE IN LAND COSTS ON TOWN HOUSE UNIT RENTS

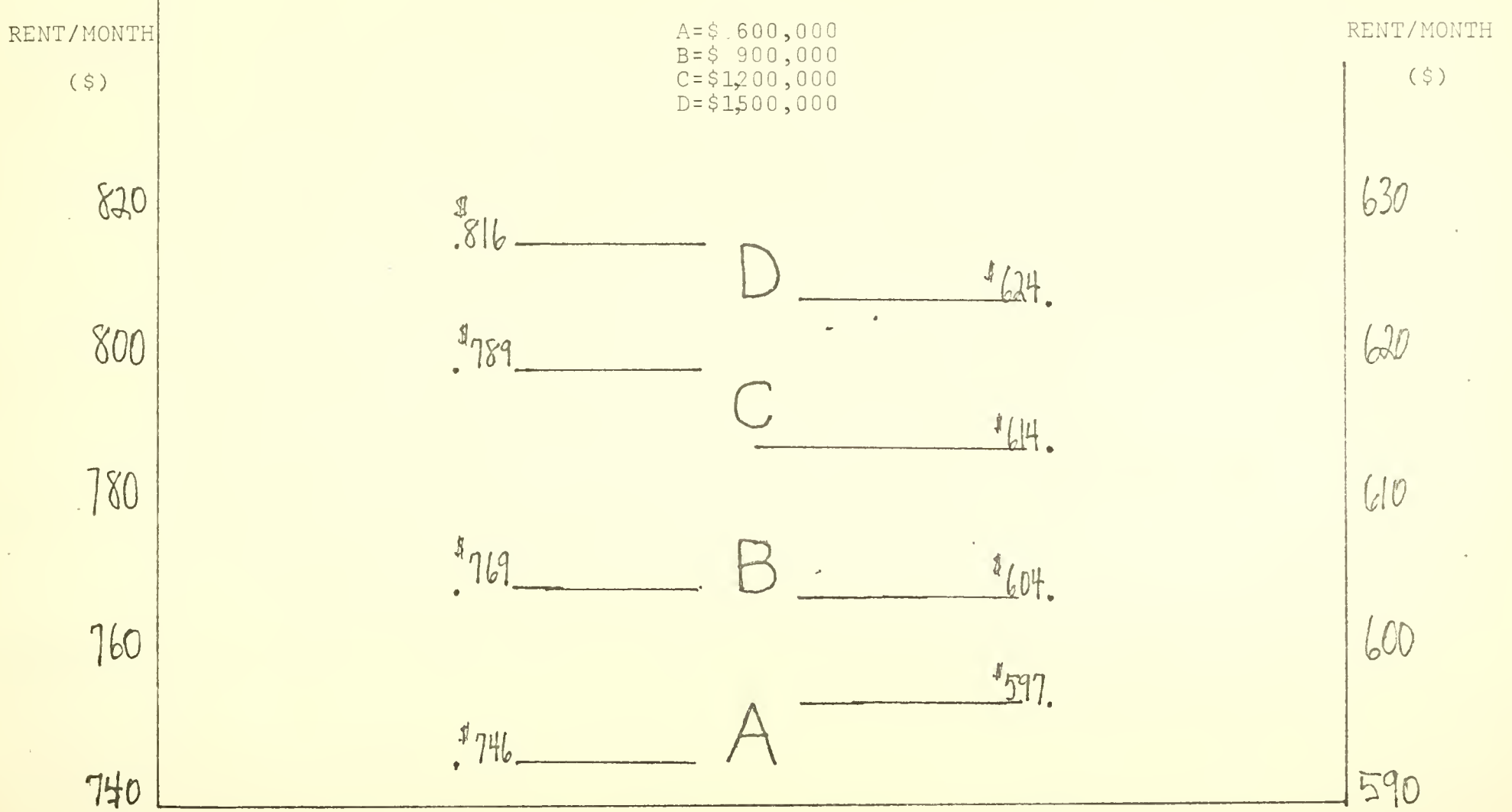
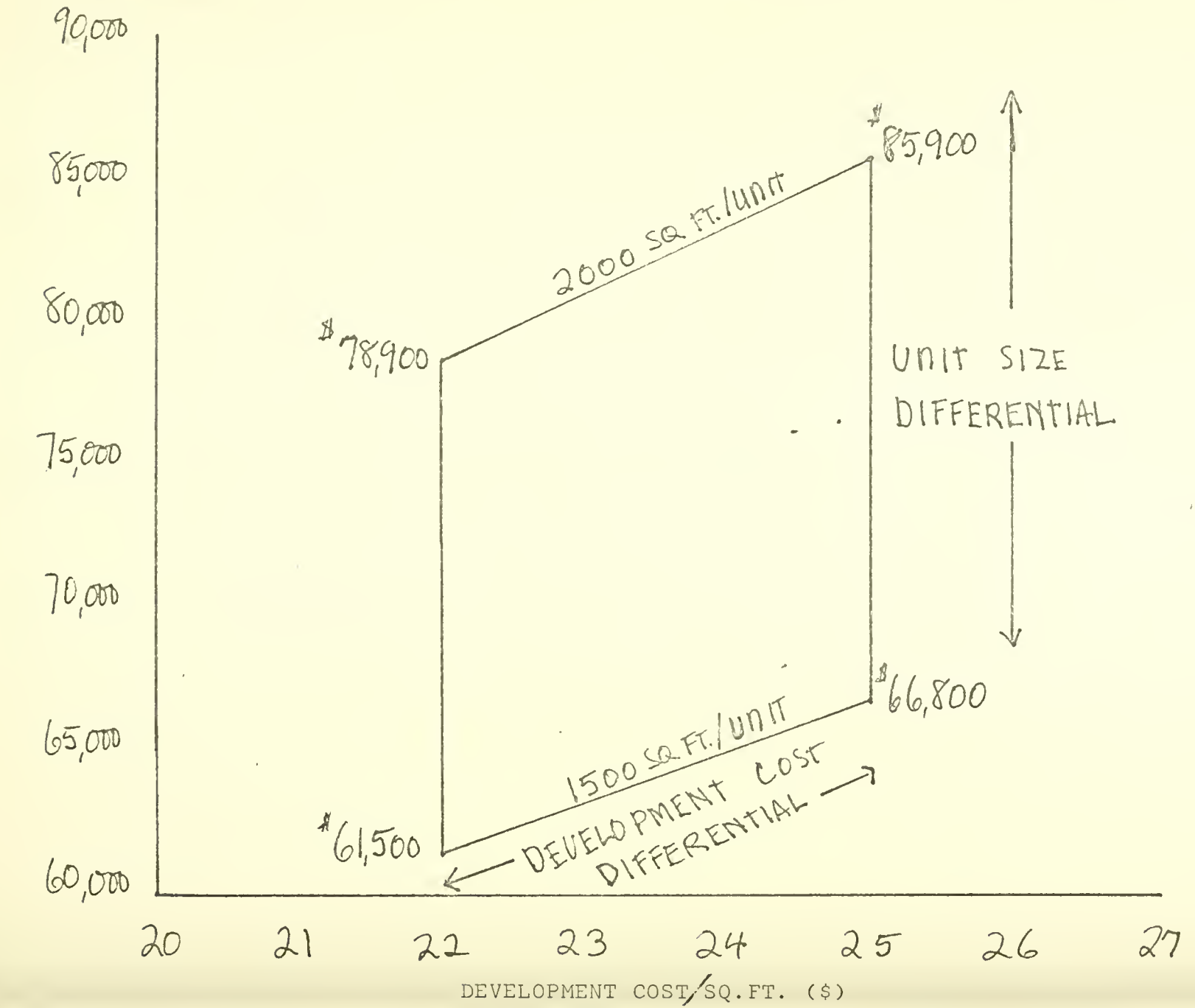


TABLE 9 150 TOWN HOUSE UNITS
THE IMPACT OF UNIT SIZE AND
DEVELOPMENT COST ON SALES PRICE



STRAIGHT LINE DEPRECIATION

```
HELLO-B960,BOSRE



.B. HELLO FROM TSC

READY

GET-LARRY
300 LET N=.033
380 DATA 1174250,1165860,1156680,1146650,1135670,12-123670
390 DATA 1110530,1096170,1080460,1063270,89414,97802,106977
400 DATA 117012,127989,139995,153127,167492,183203,200389
RUN
LARRY

#UNITS
?650
#PKG SPACES REQUIRED 1072.5
SQ/UNIT
?1000
LAND COST 1.20000E+06
CONST COST 1.62500E+07
DEV COST 1.74500E+07
1ST MTG AMT 1.30875E+07
EQUITY 4.36250E+06
AV INTEREST 1.12532E+06
AV AMORT 138340.
AV DEBT SER 1.26366E+06
OPERATING EX 487500.
PROFIT
?.1
TAXES,VACANCY 969026.
GROSS INCOME 3.15644E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4856.06
MONTHLY RENT 404.671
RATE DEP .033
AV DEP 536250.
NET INCOME HSG 1.70149E+06
NET INCOME GAR 0
NET CASH INCOME 1.70149E+06
BEFORE TAX RETURN EQ 9.72771
NET TAX INCOME 39918.5
TAX 19959.2
RETURN ON EQUITY 12.3579
PROP TAX 809626.

END
380 DATA 669556,664773,659542,653820,647561,640715,633227,625036
390 DATA 616077,606278,595084,582767,569098,554720,538979,521825
400 DATA 87313,95504,104463,114262
RUN
LARRY

#UNITS
?350
#PKG SPACES REQUIRED 577.5
SQ/UNIT
?1000
LAND COST 1.20000E+06
CONST COST 8.75000E+06
DEV COST 9.95000E+06
1ST MTG AMT 7.46250E+06
EQUITY 2.48750E+06
AV INTEREST 641658.
AV AMORT 78881.5
AV DEBT SER 720540.
OPERATING EX 262500.
PROFIT
?.1
TAXES,VACANCY 545685.
GROSS INCOME 1.77747E+06
GAR INCOME 0
YEARLY INCOME/UNIT 5078.5
MONTHLY RENT 423.208
RATE DEP .033
AV DEP 288750.
NET INCOME HSG 970179.
NET INCOME GAR 0
NET CASH INCOME 970179.
```

STRAIGHT LINE DEPRECIATION

HI-RISE

```
71000
LAND COST 1.20000E+06
CONST COST 8.75000E+06
DEV COST 9.95000E+05
1ST MTG AMT 7.46250E+06
EQUITY 2.48750E+06
AV INTEREST 641658.
AV AMORT 78881.5
AV DEBT SER 720540.
OPERATING EX 262500.
PROFIT
7.1
TAXES,VACANCY 545685.
GROSS INCOME 1.77747E+06
GAR INCOME 0
YEARLY INCOME/UNIT 5078.5
MONTHLY RENT 423.208
RATE DEP .033
AV DEP 288750.
NET INCOME HSG 970179.
NET INCOME GAR 0
NET CASH INCOME 970179.
BEFORE TAX RETURN EQ 9.72727
NET TAX INCOME 39770.2
TAX 19885.1
RETURN ON EQUITY 12.0261
PROP TAX 455922.

END
380 DATA 1763050,1750460,1736680,1721620,1705140,1687110
390 DATA 1667390,1645820,1622230,1596430,134249,146843,160618
400 DATA 175685,192166,210193,229910,251477,275067,300870
RUN
LARRY

#UNITS
71000
#PKG SPACES REQUIRED 1650
SQ/UNIT
71000
LAND COST 1.20000E+06
CONST COST 2.50000E+07
DEV COST 2.62000E+07
1ST MTG AMT 1.96500E+07
EQUITY 6.55000E+06
AV INTEREST 1.68959E+06
AV AMORT 207708.
AV DEBT SER 1.89730E+06
OPERATING EX 750000.
PROFIT
7.1
TAXES,VACANCY 1.46292E+06
GROSS INCOME 4.76523E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4765.23
MONTHLY RENT 397.102
RATE DEP .033
AV DEP 825000.
NET INCOME HSG 2.55468E+06
NET INCOME GAR 0
NET CASH INCOME 2.55468E+06
BEFORE TAX RETURN EQ 9.7279
NET TAX INCOME 40091.
TAX 20045.5
RETURN ON EQUITY 12.5049
PROP TAX 1.22228E+06

END
380 DATA 1342480,1332890,1322400,1310930,1298380,1284650
390 DATA 1269640,1253210,1235250,1215600,102225,111814,122303
400 DATA 133776,146325,160051,175065,191487,209450,229098
RUN
LARRY

#UNITS
7750
#PKG SPACES REQUIRED 1237.5
SQ/UNIT
71000
LAND COST 1.20000E+06
CONST COST 1.87500E+07
DEV COST 1.99500E+07
1ST MTG AMT 1.49625E+07
EQUITY 4.98750E+06
AV INTEREST 1.28654E+06
AV AMORT 158159.
AV DEBT SER 1.44470E+06
OPERATING EX 562500.
PROFIT
7.1
TAXES,VACANCY 1.11014E+06
GROSS INCOME 3.61609E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4821.46
MONTHLY RENT 401.788
RATE DEP .033
AV DEP 618750.
NET INCOME HSG 1.94526E+06
NET INCOME GAR 0
NET CASH INCOME 1.94526E+06
BEFORE TAX RETURN EQ 9.72777
NET TAX INCOME 399 7.5
TAX 19984.7
RETURN ON EQUITY 12.4131
```

Hi-Rise
DOUBLE DECLINING
BALANCE

```
#PKG SPACES REQUIRED 1072.5
50/UNIT
?1000
LAND COST 1.20000E+06
CONST COST 1.62500E+07
DEV COST 1.74500E+07
1ST MTG AMT 1.30875E+07
EQUITY 4.36250E+06
AV INTEREST 1.12532E+06
AV AMORT 138340.
AV DEBT SER 1.26366E+06
OPERATING EX 487500.
PROFIT
?.1
TAXES,VACANCY 969026.
GROSS INCOME 3.15644E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4856.06
MONTHLY RENT 404.671
RATE DEP .0401
AV DEP 651625.
NET INCOME HSG 1.70149E+06
NET INCOME GAR 0
NET CASH INCOME 1.70149E+06
BEFORE TAX RETURN EQ 9.72771
NET TAX INCOME-75456.5
TAX-37728.2
RETURN ON EQUITY 13.6396
PROP TAX 809626.

END
380 DATA 669556,664773,659542,653820,647561,640715,633227,625036
390 DATA 616077,606278,595984,585767,575998,566720,557979,549825
400 DATA 87313,95504,104463,114262
RUN
LARRY

#UNITS
?350
#PKG SPACES REQUIRED 577.5
50/UNIT
?1000
LAND COST 1.20000E+06
CONST COST 8.75000E+06
DEV COST 9.95000E+06
1ST MTG AMT 7.46250E+06
EQUITY 2.48750E+06
AV INTEREST 641658.
AV AMORT 78881.5
AV DEBT SER 720540.
OPERATING EX 262500.
PROFIT
?.1
TAXES,VACANCY 545685.
GROSS INCOME 1.77747E+06
GAR INCOME 0
YEARLY INCOME/UNIT 5078.5
MONTHLY RENT 423.208
RATE DEP .0401
AV DEP 350875.
NET INCOME HSG 970179.
NET INCOME GAR 0
NET CASH INCOME 970179.
BEFORE TAX RETURN EQ 9.72727
NET TAX INCOME-22354.7
TAX-11177.4
RETURN ON EQUITY 13.2364
PROP TAX 455922.

END
380 DATA 1763050,1750460,1736680,1721620,1705140,1687110
390 DATA 1667390,1645820,1622230,1596430,1568243,1537618
400 DATA 175685,192166,210193,229910,251477,275067,300870
RUN
LARRY

#UNITS
?1000
#PKG SPACES REQUIRED 1650
50/UNIT
?1000
LAND COST 1.20000E+06
CONST COST 2.50000E+07
DEV COST 2.62000E+07
1ST MTG AMT 1.96500E+07
EQUITY 6.55000E+06
AV INTEREST 1.68959E+06
AV AMORT 207705.
AV DEBT SER 1.89730E+06
OPERATING EX 750000.
PROFIT
?.1
TAXES,VACANCY 1.46295E+06
GROSS INCOME 4.76553E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4765.53
MONTHLY RENT 397.128
RATE DEP .0401
AV DEP 1.05000E+06
NET INCOME HSG 2.97605E+06
NET INCOME GAR 0
NET CASH INCOME 2.97605E+06
BEFORE TAX RETURN EQ 9.72727
NET TAX INCOME-68863.8
TAX-34431.9
RETURN ON EQUITY 13.2364
PROP TAX 1.22188E+06

END
380 DATA 2.64458E+06,2.62569E+06,2.60514E+06,2.58273E+06,2.55824E+06
390 DATA 2.53144E+06,2.50208E+06,2.46984E+06,2.43439E+06,2.39535E+06
400 DATA 263528,289748,318712,350583,385541,423795,465574,512131
RUN
LARRY
```

```
EQUITY 2.48750E+06
AV INTEREST 641058.
AV AMORT 78981.5
AV DEBT SER 720540.
OPERATING EX 262500.
PROFIT
7.1
TAXES,VACANCY 545685.
GROSS INCOME 1.77747E+06
GAR INCOME 0
YEARLY INCOME/UNIT 5078.5
MONTHLY RENT 423.208
RATE DEP .0401
AV DEP 350875.
NET INCOME HSG 970179.
NET INCOME GAR 0
NET CASH INCOME 970179.
BEFORE TAX RETURN EQ 9.72727
NET TAX INCOME-22354.7
TAX-11177.4
RETURN ON EQUITY 13.2364
PROP TAX 455922.

END
380 DATA 1763050,1750460,1736680,1721620,1705140,1687110
390 DATA 1667390,1645820,1622230,1596430,134249,140843,160618
400 DATA 175685,192166,210193,229910,251477,275067,300870
RUN
LARRY

#UNITS
71000
#PKG SPACES REQUIRED 1650
SQ/UNIT
71000
LAND COST 1.20000E+06
CONST COST 2.50000E+07
DEV COST 2.62000E+07
1ST MTG AMT 1.96500E+07
EQUITY 6.55000E+06
AV INTEREST 1.68959E+06
AV AMORT 207708.
AV DEBT SER 1.89730E+06
OPERATING EX 750000.
PROFIT
7.1
TAXES,VACANCY 1.46292E+06
GROSS INCOME 4.76523E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4765.23
MONTHLY RENT 397.102
RATE DEP .0401
AV DEP 1.00250E+06
NET INCOME HSG 2.55468E+06
NET INCOME GAR 0
NET CASH INCOME 2.55468E+06
BEFORE TAX RETURN EQ 9.7279
NET TAX INCOME-137409.
TAX-68704.5
RETURN ON EQUITY 13.8182
PROP TAX 1.22228E+06

END
380 DATA 1342480,1332890,1322400,1310930,1298380,1284650
390 DATA 1269640,1253210,1235250,1215600,102225,111814,122303
400 DATA 133776,146325,160051,175065,191487,209450,229098
RUN
LARRY

#UNITS
7750
#PKG SPACES REQUIRED 1237.5
SQ/UNIT
71000
LAND COST 1.20000E+06
CONST COST 1.87500E+07
DEV COST 1.99500E+07
1ST MTG AMT 1.49625E+07
EQUITY 4.98750E+06
AV INTEREST 1.28654E+06
AV AMORT 158159.
AV DEBT SER 1.44470E+06
OPERATING EX 562500.
PROFIT
7.1
TAXES,VACANCY 1.11014E+06
GROSS INCOME 3.61609E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4821.46
MONTHLY RENT 401.788
RATE DEP .0401
AV DEP 751875.
NET INCOME HSG 1.94526E+06
NET INCOME GAR 0
NET CASH INCOME 1.94526E+06
BEFORE TAX RETURN EQ 9.72777
NET TAX INCOME-93157.5
TAX-46578.7
RETURN ON EQUITY 13.7066
PROP TAX 927528.

END
BYE
018 MINUTES OF TERMINAL TIME.
```

Hi Rise

DOUBLE DECLINING BALANCE

HI-RISE

land

LAND COST AS VARIABLE

```
50 LET C=900000
380 DATA 1742860,1730410,1716800,1701900,1685610,1667790
390 DATA 1648300,1626980,1603660,15782-150,132714,145163
400 DATA 154780,173674,189967,207787,227278,248599,271920
410 DATA 297428
RUN
LARRY

#UNITS
71000
#PKG SPACES REQUIRED 1650
SQ/UNIT
71000
LAND COST 900000.
CONST COST 2.50000E+07
DEV COST 2.59000E+07
1ST MTG AMT 1.94250E+07
EQUITY 6.47500E+06
AV INTEREST 1.67025E+06
AV AMORT 205331.
AV DEBT SER 1.87558E+06
OPERATING EX 750000.
PROFIT
7.1
TAXES,VACANCY 1.44998E+06
GROSS INCOME 4.72306E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4723.06
MONTHLY RENT 393.588
RATE DEP .033
AV DEP 825000.
NET INCOME HSG 2.52544E+06
NET INCOME GAR 0
NET CASH INCOME 2.52544E+06
BEFORE TAX RETURN EQ 9.72799
NET TAX INCOME 30193.5
TAX 15096.7
RETURN ON EQUITY 12.5757
PROP TAX 1.21146E+06
```

900,000

```
END
380 DATA 649189,644552,639480,633932,627863,627863\
380 DATA 649189,644552,639480,633932,627863,621226,613965,606024
390 DATA 597338,587836,49433,54070,59142,64690,70759,77396
400 F-DATA 84657,92598,101285,110786
RUN
LARRY

#UNITS
7350
#PKG SPACES REQUIRED 577.5
SQ/UNIT
71000
LAND COST 900000.
CONST COST 8.75000E+06
DEV COST 9.65000E+06
1ST MTG AMT 7.23750E+06
EQUITY 2.41250E+06
AV INTEREST 622140.
AV AMORT 76481.6
AV DEBT SER 698622.
OPERATING EX 262500.
PROFIT
7.1
TAXES,VACANCY 532653.
GROSS INCOME 1.73502E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4957.21
MONTHLY RENT 413.101
RATE DEP .033
AV DEP 288750.
NET INCOME HSG 940740.
NET INCOME GAR 0
NET CASH INCOME 940740.
BEFORE TAX RETURN EQ 9.72758
NET TAX INCOME 11249.2
TAX 14624.6
RETURN ON EQUITY 12.5718
PROP TAX 440944.
```

900,000

END

41- RISE

LAND COST AS VARIABLE

```
71000
LAND COST 900000.
CONST COST 8.75000E+06
DEV COST 9.65000E+06
1ST MTG AMT 7.23750E+06
EQUITY 2.41250E+06
AV INTEREST 632140.
AV AMORT 76481.6
AV DEBT SER 698622.
OPERATING EX 262500.
PROFIT
7.1
TAXES,VACANCY 532653.
GROSS INCOME 1.73502E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4957.21
MONTHLY RENT 413.101
RATE DEP .033
AV DEP 288750.
NET INCOME HSG 940740.
NET INCOME GAR 0
NET CASH INCOME 940740.
BEFORE TAX RETURN EQ 9.72758
NET TAX INCOME 29849.2
TAX 14924.6
RETURN ON EQUITY 12.2008
PROP TAX 445034.

END
50 LET C=1500000
380 DATA 1783240,1770500,1756570,1741330,1724660,1706430
390 DATA 1686480,1664670,1640810,1614710,135787,148525
400 DATA 162458,177698,194367,212600,232543,254357,278217,304316
RUN
LARRY

#UNITS
71000
#PKG SPACES REQUIRED 1650
SQ/UNIT
71000
LAND COST 1.50000E+06
CONST COST 2.50000E+07
DEV COST 2.65000E+07
1ST MTG AMT 1.98750E+07
EQUITY 6.62500E+06
AV INTEREST 1.70894E+06
AV AMORT 210087.
AV DEBT SER 1.91903E+06
OPERATING EX 750000.
PROFIT
7.1
TAXES,VACANCY 1.47587E+06
GROSS INCOME 4.80740E+06
GAR INCOME 0
YEARLY INCOME/UNIT 4807.4
MONTHLY RENT 400.617
RATE DEP .033
AV DEP 825000.
NET INCOME HSG 2.58393E+06
NET INCOME GAR 0
NET CASH INCOME 2.58393E+06
BEFORE TAX RETURN EQ 9.7278
NET TAX INCOME 49990.5
TAX 24995.2
RETURN ON EQUITY 12.4358
PROP TAX 1.23310E+06

END
380 DATA 689743,684817,679428,673533,667085,660033,652319
390 DATA 643882,634652,624558,52521,57448,62837,68732,75179
400 DATA 82232,89946,98383,107613,117707
RUN
LARRY

#UNITS
7350
#PKG SPACES REQUIRED 577.5
SQ/UNIT
71000
LAND COST 1.50000E+06
CONST COST 8.75000E+06
DEV COST 1.02500E+07
1ST MTG AMT 7.68750E+06
EQUITY 2.56250E+06
AV INTEREST 661005.
AV AMORT 81259.8
AV DEBT SER 742265.
OPERATING EX 262500.
PROFIT
7.1
TAXES,VACANCY 558631.
GROSS INCOME 1.81965E+06
GAR INCOME 0
YEARLY INCOME/UNIT 5198.99
MONTHLY RENT 433.249
RATE DEP .033
AV DEP 288750.
NET INCOME HSG 999425.
NET INCOME GAR 0
NET CASH INCOME 999425.
BEFORE TAX RETURN EQ 9.72705
NET TAX INCOME 49669.7
TAX 24834.9
RETURN ON EQUITY 11.1613
PROP TAX 467110.
```

1,500,000

1,500,000

350 units

```
                    1.074378E+07
                    1.037366E+06
                    393750.
                    792634.
                    2.58187E+06
                    0
                    7376.77
                    614.731
                    .033
                    433125.
                    1.39678E+06
                    0
                    1.39678E+06
                    9.72758
                    39857.5
                    19928.7
                    12.2619
                    662250.

END
70 LET DI=(A*B*22)
380 DATA 413846,410890,407656,404120,400251,396020,391391
390 DATA 8-386329,380791,374734,31512,34469,37702,41239
400 DATA 45107,49339,53967,59030,64567,70624
RUN
LARRY
```

150 units

1500 ft

Townhouse

Assume $22/ft

Construction cost

```
#UNITS
7150
#PKG SPACES REQUIRED 247.5
SQ/UNIT
71500
LAND COST 1.20000E+06
CONST COST 4.95000E+06
DEV COST 6.15000E+06
1ST MTG AMT 4.61250E+06
EQUITY 1.53750E+06
AV INTEREST 396603.
AV AMORT 48755.6
AV DEBT SER 445358.
OPERATING EX 168750.
PROFIT
7.1
TAXES,VACANCY 340162.
GROSS INCOME 1.10802E+06
GAR INCOME 0
YEARLY INCOME/UNIT 7386.8
MONTHLY RENT 615.567
RATE DEP .033
AV DEP 163350.
NET INCOME HSG 599662.
NET INCOME GAR 0
NET CASH INCOME 599662.
BEFORE TAX RETURN EQ 9.72756
NET TAX INCOME 39709.5
TAX 19854.7
RETURN ON EQUITY 11.5495
PROP TAX 284207.

END
380 DATA 524878,521129,517028,512543,507636,502269,496399
390 DATA 489979,482956,475274,39967,43716,47817,52303,57209
400 DATA 62576,68446,74867,81889,89571
RUN
LARRY
```

150 units

2000 ft

```
#UNITS
7150
#PKG SPACES REQUIRED 247.5
SQ/UNIT
72000
LAND COST 1.20000E+06
CONST COST 6.60000E+06
DEV COST 7.80000E+06
1ST MTG AMT 5.85000E+06
EQUITY 1.95000E+06
AV INTEREST 503009.
AV AMORT 61836.1
AV DEBT SER 564845.
OPERATING EX 225000.
PROFIT
7.1
TAXES,VACANCY 436288.
GROSS INCOME 1.42113E+06
GAR INCOME 0
YEARLY INCOME/UNIT 9474.22
MONTHLY RENT 789.518
RATE DEP .033
AV DEP 217800.
NET INCOME HSG 760556.
NET INCOME GAR 0
NET CASH INCOME 760556.
BEFORE TAX RETURN EQ 9.72797
NET TAX INCOME 39746.9
TAX 19873.4
RETURN ON EQUITY 11.8138
PROP TAX 364521.
```

TOWNHOUSE

UNIT SIZE VARIABLE, CONSTRUCTION COST VARIABLE

ASSUME $25/ft

TOWNHOUSE

```
SO LET C=1200000
380 DATA 68079,6768\
380 DATA 459268,455988,452399,448474,444181,439485,434349
390 DATA 428731,422586,415864,4-34971,38252,41840,45765
400 DATA 50058,54754,59890,65509,71654,78375
RUN
LARRY

#UNITS
?150
#PKG SPACES REQUIRED 247.5
SQ/UNIT
?1500
LAND COST 1.20000E+06
CONST COST 5.62500E+06
DEV COST 6.82500E+06
1ST MTG AMT 5.11875E+06
EQUITY 1.70625E+06
AV INTEREST 440132.
AV AMORT 54106.8
AV DEBT SER 494239.
OPERATING EX 168750.
PROFIT
?.1
TAXES,VACANCY 369292.
GROSS INCOME 1.20291E+06
GAR INCOME 0
YEARLY INCOME/UNIT 8019.38
MONTHLY RENT 668.281
RATE DEP .033
AV DEP 185625.
NET INCOME HSG 665466.
NET INCOME GAR 0
NET CASH INCOME 665466.
BEFORE TAX RETURN EQ 9.72681
NET TAX INCOME 39708.4
TAX 19854.2
RETURN ON EQUITY II 6726
PROP TAX 308546.

END
380 DATA 585441,581259,576685,571681,566209,560222,553675
390 DATA 546513,538680,530112,44579,48761,53335,58338,63811
400 DATA 69797,76344,83506,91340,99908
RUN
LARRY

#UNITS
?150
#PKG SPACES REQUIRED 247.5
SQ/UNIT
?2000
LAND COST 1.20000E+06
CONST COST 7.50000E+06
DEV COST 8.70000E+06
1ST MTG AMT 6.52500E+06
EQUITY 2.17 00E+06
AV INTEREST 561048.
AV AMORT 68971.9
AV DEBT SER 630020.
OPERATING EX 225000.
PROFIT
?.1
TAXES,VACANCY 475128.
GROSS INCOME 1.54765E+06
GAR INCOME 0
YEARLY INCOME/UNIT 10317.7
MONTHLY RENT 859.804
RATE DEP .033
AV DEP 247500.
NET INCOME HSG 848294.
NET INCOME GAR 0
NET CASH INCOME 848294.
BEFORE TAX RETURN EQ 9.72713
NET TAX INCOME 39746.
TAX 19873
RETURN ON EQUITY II 9152
PROP TAX 396972.

END
380 DATA 9[illegible]
```

1500 ft

2000 ft

Townhouse

LAND COST VARIABLE

```
300 LET N=.033
RUN
LARRY

#UNITS
?150
#PKG SPACES REQUIRED 247.5
SQ/UNIT
?1500
LAND COST 900000.
CONST COST 5.62500E+06
DEV COST 6.52500E+06
1ST MTG AMT 4.89375E+06
EQUITY 1.63125E+06
AV INTEREST 420786.
AV AMORT 51726.7
AV DEBT SER 472515.
OPERATING EX 168750.
PROFIT
?.1
TAXES,VACANCY 356346.
GROSS INCOME 1.16074E+06
GAR INCOME 0
YEARLY INCOME/UNIT 7738.24
MONTHLY RENT 644.853
RATE DEP .033
AV DEP 185625.
NET INCOME HSG 636220.
NET INCOME GAR 0
NET CASH INCOME 636220.
BEFORE TAX RETURN EQ 9.72712
NET TAX INCOME 29809
TAX 14904.5
RETURN ON EQUITY 11.9152
PROP TAX 297729.

END
380 DATA 943771,937029,929656,921590,912768,903118,8926-563
390 DATA 881018,868390,854578,71865,78606,85980,94046
400 DATA 102868,112518,123073,134618,147246,161059
RUN
LARRY

#UNITS
?350
#PKG SPACES REQUIRED 577.5
SQ/UNIT
?1500
LAND COST 900000.
CONST COST 1.31250E+07
DEV COST 1.40250E+07
1ST MTG AMT 1.05187E+07
EQUITY 3.50625E+06
AV INTEREST 904448.
AV AMORT 111188.
AV DEBT SER 1.01564E+06
OPERATING EX 393750.
PROFIT
?.1
TAXES,VACANCY 779687.
GROSS INCOME 2.53970E+06
GAR INCOME 0
YEARLY INCOME/UNIT 7256.28
MONTHLY RENT 604.69
RATE DEP .033
AV DEP 433125.
NET INCOME HSG 1.36753E+06
NET INCOME GAR 0
NET CASH INCOME 1.36753E+06
BEFORE TAX RETURN EQ 9.72774
NET TAX INCOME 29958
TAX 14979
RETURN ON EQUITY 12.3873
PROP TAX 651433.

END
SOLET C=1500000
380 DATA 479456,476031,472285,468188,463706,458804,453442,447577
390 DATA 441161,434144,36509,39933,43679,47776,52258,57160
400 DATA 62523,68388,74803,81820
RUN
LARRY

#UNITS
?150
#PKG SPACES REQUIRED 247.5
SQ/UNIT
?1500
LAND COST 1.50000E+06
CONST COST 5.62500E+06
DEV COST 7.[illegible]
1ST MTG AMT 5.34375E+06
EQUITY 1.78125E+06
AV INTEREST 459479.
AV AMORT 56484.9
AV DEBT SER 515964.
OPERATING EX 168750.
PROFIT
?.1
TAXES,VACANCY 389239.
GROSS INCOME 1.26508E+06
GAR INCOME 0
YEARLY INCOME/UNIT 8300.59
MONTHLY RENT 691.71
```

```
DEV COST 1.40250E+07
1ST MTG AMT 1.05187E+07
EQUITY 3.50625E+06
AV INTEREST 904448.
AV AMORT 111188.
AV DEBT SER 1.01564E+06
OPERATING EX 393750.
PROFIT
7.1
TAXES,VACANCY 779687.
GROSS INCOME 2.53970E+06
GAR INCOME 0
YEARLY INCOME/UNIT 7256.28
MONTHLY RENT 604.69
RATE DEP .033
AV DEP 433125.
NET INCOME HSG 1.36753E+06
NET INCOME GAR 0
NET CASH INCOME 1.36753E+06
BEFORE TAX RETURN EQ 9.72774
NET TAX INCOME 29958
TAX 14979
RETURN ON EQUITY 12.3873
PROP TAX 651433.

END
SOLET C=1500000
380 DATA 479456,476031,472285,468188,463706,458804,453442,447577
390 DATA 441161,434144,36509,39933,43679,47776,52258,57160
400 DATA 62523,68388,74803,81820
RUN
LARRY

#UNITS
7150
#PKG SPACES REQUIRED 247.5
SQ/UNIT
71500
LAND COST 1.50000E+06
CONST COST 5.02500E+06
DEV COST 7.12500E+06
1ST MTG AMT 5.34375E+06
EQUITY 1.78125E+06
AV INTEREST 459479.
AV AMORT 56484.9
AV DEBT SER 515964.
OPERATING EX 168750.
PROFIT
7.1
TAXES,VACANCY 382239.
GROSS INCOME 1.24508E+06
GAR INCOME 0
YEARLY INCOME/UNIT 8300.52
MONTHLY RENT 691.71
RATE DEP .033
AV DEP 185625.
NET INCOME HSG 694712.
NET INCOME GAR 0
NET CASH INCOME 694712.
BEFORE TAX RETURN EQ 9.72653
NET TAX INCOME 49607.7
TAX 24803.9
RETURN ON EQUITY 11.4504
PROP TAX 319363.

END
380 DATA 984146,977116,969427,961017,951817,941755,930749
390 DATA 918709,905541,891138,74939,81969,89658,98069
400 DATA 107268,117331,128337,140376,153544,167948
RUN
LARRY

#UNITS
7350
#PKG SPACES REQUIRED 577.5
SQ/UNIT
71500
LAND COST 1.50000E+06
CONST COST 1.31250E+07
DEV COST 1.46250E+07
1ST MTG AMT 1.09687E+07
EQUITY 3.65625E+06
AV INTEREST 943142.
AV AMORT 115944.
AV DEBT SER 1.05909E+06
OPERATING EX 393750.
PROFIT
7.1
TAXES,VACANCY 805581.
GROSS INCOME 2.62404E+06
GAR INCOME 0
YEARLY INCOME/UNIT 7497.26
MONTHLY RENT 624.772
RATE DEP .033
AV DEP 433125.
NET INCOME HSG 1.42602E+06
NET INCOME GAR 0
NET CASH INCOME 1.42602E+06
BEFORE TAX RETURN EQ 9.72742
NET TAX INCOME 49795.7
TAX 24877.9
RETURN ON EQUITY 12.1416
PROP TAX 673066.
```

townhouse

Land cost variable

CABOT ESTATE

SUMMARY OF ALTERNATIVE DEVELOPMENT SCHEMES

BOSTON REDEVELOPMENT AUTHORITY

I. BACKGROUND

The City of Boston as well as the community of Jamaica Plain are concerned with the impact of development on the Cabot Estate. As a result of this concern, the Boston Redevelopment Authority has been requested to undertake a series of planning and design studies. A variety of reports both written and visual have been prepared. This study represents a summary of the highlights of this work.

II. METHODOLOGY

Seven alternative forms of development on the Cabot Estate have been studied by the BRA. These are as follows:

1. 150 cluster condominium units
2. 150 linear condominium units
3. 350 linear condominium units
4. 350 megastructure rental units
5. 650 one tower rental units
6. 650 three tower rental units
7. 750 three tower rental units

Each of the above alternatives has been evaluated in terms of ten (10) basic concerns. These factors are:

1. Building mass, i.e., total square footage
2. Parking demand
3. Density - the number of units per acre on the site relative to the total site area (gross) and the developed portion of the site (net).
4. Conservation - the percentage of land left undeveloped.
5. Building height and number of buildings
6. School children generated (estimate)

7. City taxes generated (estimate)

8. Preliminary estimate of rental or sales price of unit

9. Projected feasibility of marketing the proposal

10. Household characteristics expected for given alternative

A comparison of each of the seven alternatives in terms of the 10 major concerns has revealed a variety of interesting facts. Some of the conclusions are constant for a given density of development. Others vary with the form of the development. Those characteristics which either highlight the similarities or differences between the alternatives are described below.

III. CONCLUSIONS

A. 150 UNIT CONDOMINIUM ALTERNATIVES

1. Assumptions Constant for 150 Unit Cluster and Linear Schemes

a. Mass

The highest number of square feet per unit (2,000) and the lowest total square footage (300,000).

b. Parking

Two (2) parking spaces provided for each unit and the lowest total number of parking spaces (300).

c. Density

The lowest gross number of dwelling units per acre (6.5).

d. Public School Children

The second highest number of public school children; estimated average is 59.

e. City Taxes

Lowest estimated total yearly city taxes ($364,000).

f. Prices

The estimated sales price per unit of these alternatives would be $79,000. This assumes a development cost of $22 a square foot,

a 10% before tax return on equity and a sales price based on, a rule of thumb, 100 times the estimated monthly rent.

g. Marketability and Staging

(1) The price of $79,000 is above the average sales price of luxury condominium units in the Greater Boston area (around $55,000) and the sales price of newly constructed single-family homes in Jamaica Plain (about $40,000).

(2) The above alternatives would have to be reduced to around 1,500 square feet in size in order to lower the price to a range, $61,000, which might be marketable.

(3) All town house condominium projects in the Greater Boston area have been staged or are a conversion from rental. There are no newly constructed condominium developments of 150 units in the Greater Boston area.

h. Household Characteristics

The experience of luxury town house condominium developments in the Greater Boston area indicate that they tend to attract older households whose children no longer live at home.

2. Distinct Characteristics of 150 Unit Cluster Alternative

a. Conservation

(1) The least amount of land left undeveloped; 17.3 acres or 75% of the total site area.

(2) Although much of the site is covered, this alternative has the lowest net density, i.e., 26 dwelling units per acre of developed area.

3. Distinct Characteristics of 150 Unit Linear Alternative

a. Conservation

This alternative is similar to the 350 megastructure and the 650 one (1) tower alternatives in the amount of land area left undeveloped, about 87%.

b. Buildings

The fewest number of buildings (5) and the lowest height (18 feet)

B. 350 UNIT ELEVATOR CONDOMINIUM AND RENTAL ALTERNATIVES

1. Assumptions Constant for 350 Unit Linear, Condominium and Megastructure, Rental Alternatives

Because of the difference in unit size, design, form of ownership, etc., there is only one distinct quality shared by both 350 unit alternatives.

a. Price

The average square foot price for construction is $25 a square foot in contrast to $22 a square foot for the 150 unit alternative. The higher costs result from elevator building construction. This same type of construction and costs are assumed for the 650 and 750 unit alternatives.

2. Distinct Characteristics of 350 Unit Linear Alternative

a. Unit Size

(1) The only alternative which assumes an average of 1,500 sq. ft. per unit.

(2) The total mass (525,000 sq. ft.) is almost as great as the mass of the 650 unit alternative (650,000 sq. ft.).

b. Conservation

The second lowest percentage of site left for open space (81%).

c. School Children

The highest number of public school children; estimated average is 64.

d. City Taxes

The yearly taxes estimated to be generated by 350 condominium units ($662,000) are about 80% as great as the taxes ($810,000) which would be generated by 650 apartment tower rental units. (This assumes both projects could be marketed).

e. Price

The estimated sales price per unit is $66,800. This assumes a $25/sq. ft. development cost, a 10% before tax return on equity, and a sales price based on, the rule of thumb, 100 times the estimated monthly rent.

f. Marketability

(1) A sales price of $61,400 is above the average price of existing condominium units in the Greater Boston area ($55,000) and the sales price of newly constructed single family homes in Jamaica Plain ($40,000). This alternative, on the other hand, would sell within the average price range of condominium units at Fuller Brook Park and Fairgreen Place (an average of $72,000).

(2) There is only one proposal in the Greater Boston area for a condominium development as large as 350 units. The project proposed for Danvers would contain 360 condominium units which would sell for around $45,000 and the project would be built in two stages of 150 units.

g. Household Characteristics

Unless the sales price of this alternative can be reduced considerably, it would seem that this alternative would also attract primarily older households whose children no longer live at home.

3. Distinct Characteristics of 350 Unit Megastructure Alternative

a. Unit Size

(1) Average size unit is 1,000 sq. ft.

(2) Total mass is only slightly larger (350,000 sq. ft. vs. 300,000 sq. ft.) than the mass of the 150 unit alternatives.

b. School Children

This alternative is projected to generate the lowest number of public school children.

c. Prices

The estimated rental of this unit (assuming $25/sq. ft. development cost, 1,000 sq. ft. per unit, 10% before tax return on equity) would be $423 a month.

d. Marketability

A rent of $423 a month is outside the 5% margin range of marketable luxury rents in 1971 but inside the range of projected marketable rents in 1972.

C. 650 UNIT ELEVATOR RENTAL ALTERNATIVES

1. Assumptions Constant for 650 Unit One Tower and Three Tower Alternatives

a. Density

The second highest gross density - 28 units per acre.

b. Building Height

The height of the towers in the 650 and 750 unit alternatives is 22 stories or 198 feet.

c. Taxes

The second highest estimated amount of yearly taxes ($809,000).

d. Prices

The estimated rent per unit for the 650 elevator alternatives is $404 a month.

e. Marketability

A rent of $404 a month would be within the 5% margin range of projected marketable luxury apartment rents.

2. Distinct Characteristics of 650 One (1) Tower Elevator Rental Alternative

a. Conservation

The percentage of land left in opne space (85%) is slightly less than the 150 linear (87%) and the 350 megastructure (89%) alternatives.

3. Distinct Characteristics of 650 Three (3) Tower Elevator Rental Alternative

a. Density

The second highest net density; 310 units per acre of developed area.

b. Conservation

The highest percentage of land area left undeveloped (91%).

D. 750 UNIT ELEVATOR RENTAL ALTERNATIVE

1. Distinct Characteristics of 750 Unit Alternative

a. Mass

The highest total square footage (750,000 sq. ft.).

b. Parking

The highest total number of parking spaces (1,238).

c. Density

(1) The highest gross density (32 dwelling units per acre).

(2) The highest net density (312 units per acre of developed area).

d. Conservation

The second highest percentage of land left undeveloped.

e. School Children

Of the elevator rental alternatives, the 750 unit development would generate the highest number of public school children (15).

f. City Taxes

The highest estimated total yearly city taxes ($927,000 in contrast to $364,000 for the 150 condominium unit alternative).

g. Prices

The estimated rent per unit for the 750 unit alternative is $401 a month.

h. Marketability

A rent of $401 a month would be within the 5% margin range of projected marketable luxury apartment rents.

SUMMARY COMPARISON

Ownership	Town House Condominium				Rental									
Construction	Frame				Elevator									
Density	150 Units				350 Units				650 Units				750 Units	
Form	Cluster		Linear		Linear		MEGA Structure		1 Tower		3 Towers		3 Towers	
Factors														
Sq. Footage														
1. Per Unit	2,000		2,000		1,500		1,000		1,000		1,000		1,000	
2. Total	300,000		300,000		525,000		350,000		650,000		650,000		750,000	
Parking														
3. Spaces/Unit	2		2		2		1.65		1.65		1.65		1.65	
4. Total	300		300		700		578		1,073		1,073		1,238	
Density (dwelling units/acre)														
5. Gross	6.5		6.5		15.3		15.3		28.3		28.3		32.7	
6. Net	26		52		78		140		185		310		312	
Land Coverage		%		%		%		%		%		%		%
7. Acres Developed	5.7	25	2.9	13	4.5	19	2.5	11	3.5	15	2.1	9	2.4	10
8. Acres Undeveloped	17.3	75	20.1	87	18.5	81	20.5	89	19.5	85	20.9	91	20.6	90
Buildings														
9. Total No.	9-18'		5-18'		73-54'		3-72'		4-72'		3-198'		3-198'	
10. Height									1-198'		7-63'		7-63'	
											3-27'		3-27'	
School Children														
11. Total	120-225		120-225		105-280		14-28		26-52		26-52		30-60	
12. Avg. Public Schl.	59		59		64		9		13		13		15	
City Taxes														
13. Rent/Unit/Month	$ 789		$ 789		$ 614		$ 423		$ 404		$ 404		$ 401	
14. Taxes	$364,000		$364,000		$662,000		$455,000		$809,000		$809,000		$927,000	

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